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S. HRG. 101-735

THE FEASIBILITY OF AN ENVIRONMENTAL RESEARCH INSTITUTE AND THE POLLUTION PROSECUTION ACT OF 1990

HEARING

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 2371

A BILL TO DIRECT THE NATIONAL ACADEMY OF SCIENCES TO CONDUCT A STUDY OF THE FEASIBILITY OF AN UMBRELLA RESEARCH ARM TO SUPPORT RESEARCH ON A VARIETY OF ENVIRONMENTAL ISSUES

AND

S. 2176

A BILL TO PROVIDE BETTER ENFORCEMENT OF THE ENVIRONMENTAL LAWS OF THE UNITED STATES, AND FOR OTHER PURPOSES

APRIL 24, 1990

Printed for the use of the
Committee on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE

31-544 WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

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S321-~~36~~

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THE FEASIBILITY OF AN ENVIRONMENTAL RESEARCH INSTITUTE AND THE POLLUTION PROSECUTION ACT OF 1990

TUESDAY, APRIL 24, 1990

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 11:20 a.m. in room 406, Dirksen Senate Office Building, Hon. Quentin N. Burdick (chairman of the committee) presiding.

Present: Senators Burdick, Moynihan, Reid, Lautenberg, Graham, Chafee, Simpson, Lieberman, and Durenberger.

OPENING STATEMENT OF HON. QUENTIN N. BURDICK, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Senator BURDICK. The hearing of the Committee on the Environment and Public Works will come to order.

Today we will be seeking testimony on two bills which have been referred to our committee, S. 2371, a bill to study an environmental research institute, and S. 2176, the Pollution Prosecution bill which will be introduced by Senator Lieberman, a distinguished member of the committee.

Both of these bills have companion bills in the House which were included in the House passed EPA cabinet bill. The Environmental Institute Study bill is sponsored by Senators Bradley and Lautenberg on this side and Congressman Saxton in the House. We are honored to have Senator Bradley and Congressman Saxton here this morning to discuss that measure.

Also, Dr. Lovejoy is here as President of the Society for the Conservation Biology. I want to commend him on his work as the Assistant Secretary for external affairs for the Smithsonian and the fine job that he's done there in his efforts for the Earth Day celebration on the Mall. The research institute idea has attracted quite a bit of attention lately and I look forward to hearing more about it.

Senator Lieberman's Pollution Prosecution bill came before a hearing on EPA enforcement held by Senator Reid's oversight subcommittee. Today EPA only has about 50 criminal investigators and is unable to respond quickly and efficiently to the numerous complaints that we receive.

S. 2176 will significantly increase the number of EPA criminal investigators over a reasonable period of time. It would also provide for a mechanism to fund them. It is my understanding that

the Administration has supported the House version of Senator Lieberman's bill. I join the Administration in supporting the need for more criminal investigators at EPA and commend my colleague, Senator Lieberman, a former highly regarded State Attorney General for taking the leadership in important environmental enforcement matters.

Welcome to the meeting, gentlemen.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thank you, Mr. Chairman. I do appreciate the opportunity to make a couple of comments. First of all, I'd like to welcome my distinguished senior colleague from the State of New Jersey, and to welcome also one of our members from the other body.

Soon, Mr. Chairman, you'll be hearing from the Attorney General from the State of New Jersey as well. It's appropriate that New Jersey is here en masse in support of all good things on the environment. It's sort of a post-Earth Day thing.

I want to commend you, Mr. Chairman, in moving so quickly to hold today's hearing on S. 2371 regarding the National Institute for Environmental Research as well as S. 2176, the Pollution Prosecution Act of 1990. I am pleased to be a cosponsor of both bills.

I may not be able to stay through the whole hearing, Mr. Chairman, but I did want to express my support for this legislation.

Earth Day has focused our attention on our environment and we live during a time of historic opportunity to solve our environmental problems. We can, with help from nature and work on our own behalf, bequeath our children a healthy environment, a habitable Earth. That is our mission and our obligation.

But to do this we need an expanded basic research effort to provide the fundamental building blocks to understand our environment. It's clear that we're not investing enough in basic environmental research. A 1988 EPA Science Advisory Report called for a doubling of EPA's research budget with more emphasis on long term basic research. Creating a National Institute of Environmental Research may in fact be the way to meet the recommendations of the Science Advisory Board Report.

I want to commend, again, my senior colleague, Senator Bradley, as well as our colleague from the other body, Congressman Jim Saxton, for taking the leadership role and advancing the idea of a National Institute of Environmental Research.

Mr. Chairman, if I may, we'll make a comment on S. 2176 introduced by our distinguished colleague from Connecticut. We'll be hearing that testimony shortly. The bill would beef up the Nation's enforcement tools through increased staffing and better training.

Our environmental laws only work if they're vigorously enforced. We have to pursue relentlessly the principle of making polluters pay for the offenses that they commit against the environment. This legislation would move us in that direction.

As I said earlier, Mr. Chairman, I do have to leave to participate in a memorial ceremony that is going to prevent me from being here for all of the testimony, but I will extend an advance welcome

to Attorney General Robert Del Tufo who will be here to discuss the measure. Our governor, Governor Florio, has set an aggressive agenda for environmental enforcement. He has put polluters on notice that they're going to pay a price for their violation. He has backed that up with a tough Attorney General.

Mr. Chairman, I have a couple of more pages in my statement, and I would ask that the whole of this statement be included in the record.

Senator BURDICK. Without objection, it will be received.

Senator LAUTENBERG. Thank you very much, Mr. Chairman.

[Senator Lautenberg's statement follows:]

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR, FROM THE STATE OF NEW JERSEY

Mr. Chairman, I want to commend you for moving quickly to hold today's hearing on S. 2371, regarding the National Institutes for Environmental Research and S. 2176, the Pollution Prosecution Act of 1990. I'm pleased to be a cosponsor of both bills.

Earth Day has focused our attention on our environment. We live during a time of historic opportunity to solve our environmental problems. We can bequeath our children a healthy environment. But to do this, we need an expanded basic research effort to provide the fundamental building blocks to understanding our environment.

It is clear that we are not investing enough in basic environmental research. A 1988 EPA Science Advisory Report called for a doubling of EPA's research budget and more emphasis on long-term basic research. Creating a National Institutes of Environmental Research may be the way to meet the recommendations of the Science Advisory Board report.

I want to commend my senior colleague for taking the leadership role in advancing the idea of a National Institutes of Environmental Research.

Mr. Chairman, we'll also be hearing testimony on the Pollution Prosecution Act, S. 2176. The bill would beef up the Nation's enforcement tools through increased staffing and better training.

Our environmental laws only work if they are vigorously enforce. We must relentlessly pursue the principle of making polluters pay for the offense they commit against the environment. And this legislation would move us in that direction.

Although my participation this morning in a Holocaust memorial ceremony will prevent me from being here for testimony on S. 2176, I'd like to extend a special welcome to Robert Del Tufo, New Jersey's Attorney General, who is here to discuss the measure.

Governor Florio has set an aggressive agenda for environmental enforcement. He's put polluters on notice that they will pay a price for their violations. And he's backed that up with a tough Attorney General.

Robert Del Tufo is a distinguished law enforcement official. New Jersey's U.S. Attorney for 3 years, he also served as the State's Director of Criminal Justice and the Commissioner of the New Jersey Commission on Investigation.

Mr. Del Tufo is joined by another tough environmental advocate, Steven Madonna, who is New Jersey's Environmental Prosecutor.

Both Mr. Madonna and Mr. Del Tufo are committed to put muscle behind our environmental laws, and I thank them for their participation today.

Again Mr. Chairman, I appreciate your holding today's hearing.

Senator BURDICK. The Senator from Florida.

Senator GRAHAM. I have no opening statement, Mr. Chairman.

Senator BURDICK. The Senator from Connecticut.

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. Thank you, Mr. Chairman. Very briefly, I have a statement that I'd like to have included in the record. Just to paraphrase, I'd like to thank you for holding this hearing on both these bills, particularly on the Pollution Prosecution bill

which I am honored to introduce together with my colleagues, several on this committee.

I would just say, very briefly, that during my experience as Attorney General of the State of Connecticut, I came to understand clearly that the passing of good environmental laws is only half of the challenge. Obviously the second half is to make sure that they're enforced. We need both good laws and good enforcement if we're going to have a decent environment.

This basic principle is being recognized much more widely and intensely in environmental and law enforcement circles throughout the Country. The Attorney General of the United States, Mr. Thornburgh, has recently stressed the importance of criminal prosecution as a means of deterring deliberate non-compliance with our environmental laws.

But while the Attorney General's words are tough, the program at EPA simply has not provided enough tools to followup on those words. That is the basic purpose of this Pollution Prosecution bill. The EPA, in my opinion unbelievably, has only 50 criminal investigators throughout the entire Nation. The fact is that some individual States have almost that many investigators, and we need to increase those numbers as this bill would do.

I'm very pleased also by the support by the National District Attorney's Association, which will be represented later in this hearing, on this particular part of the bill. As you know, the bill will set up a National Training Institute for those on the Federal, State, and local levels who are involved in enforcement.

Finally, it will authorize EPA to hire 50 civil investigators which I think will not only strengthen compliance with our environmental laws, but will do so in a cost effective manner. The fact is, as members of the Governmental Affairs Committee have come to see, that EPA relies much too often on outside consultants to help develop these civil cases because they simply don't have enough of their own investigators.

This legislation will help ensure that EPA's reliance on those outside consultants is decreased.

Mr. Chairman, if I may just have your permission to say two sentences on an unrelated matter—there are friends here from a Connecticut public television network who were not here earlier when we considered the National Environmental Education Act, and I just want to say how pleased I am that the committee included within the Environmental Education Act the opportunity for public television stations to apply for grants under that program. I think that action recognizes the critical role that public television plays in education generally, and now the particularly important positive role that public television can play in environmental education.

I could tell you that in our own State of Connecticut our public television station did a magnificent in-depth documentary on the condition of Long Island Sound and what we could do about it. I would say that has been an important contributor to the great consensus in our State for doing something about cleaning up Long Island Sound. I think that part of the Education bill is going to really have an impact on public opinion and on environmental protection.

I thank you, Mr. Chairman, for allowing me to make these comments.

[Senator Lieberman's statement follows:]

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Thank you, Mr. Chairman, for holding this hearing on the Pollution Prosecution bill, which I have introduced along with Senators Lautenberg, Chafee, Durenberger, Jeffords, Wilson, and Simon. I am pleased that the House of Representatives has recently passed a companion bill as part of the EPA Cabinet bill and that the House sponsor indicated during the floor debate that the Administration supports the bill.

During my experience as Attorney General of Connecticut, I became acutely aware that having tough laws and regulations in place is only half the battle in achieving compliance with our environmental laws. Ensuring that the laws are enforced is the second critical part of any truly effective system of environmental laws.

One especially important and relatively new approach to environmental enforcement is the use of criminal penalties and imprisonment of individuals who violate our environmental laws.

Those who violate such laws have been called "green collar" criminals, and I believe people who pollute should face the possibility of doing time in jail. Monetary penalties against a company often do not represent enough of a deterrent to prevent environmental crimes; they can be too easily written off as another cost of doing business.

Those who pollute are guilty of an assault on our environment, and on our health. They are engaged in conduct that is just as criminal as those who rob at knifepoint, or who commit assault. If polluters evidence little respect for the environment, we should teach them a little respect for the law. That is the goal of my legislation.

Attorney General Dick Thornburgh recently stressed the importance of criminal prosecution as a means of deterring deliberate non-compliance with our environmental laws. He stated:

"With callous disregard for our actions and an almost hostile view toward the environment, for nearly 200 years we seemed not to care and America took a very long journey down the road of indiscriminate pollution."

The laws we have enacted are tough. Under the Clean Water Act, the oil spill legislation passed by the Senate and the Clean Air Act provision passed by the Senate, a violator can go to jail and face large civil and criminal penalties for each violation.

But, while the Attorney General's words are tough, the program at EPA does not provide enough tools to followup on these words. The backbone of EPA's criminal enforcement program is its investigators, who provide EPA with the ability to collect evidence about environmental violations. Yet, unbelievably, EPA only has approximately 50 criminal investigators throughout the nation—in essence, less than one investigator for each state. Some individual states have devoted almost that many investigators to enforcement of state criminal environmental laws. And other law enforcement agencies, such as the Fish and Wildlife Service, have more than four times the number of investigators which EPA has.

Some of the impetus for this bill resulted from the testimony we heard last November before Senator Reid's Subcommittee. Deputy Administrator Habicht, EPA Inspector General John Martin, and District Attorney Don Mielke, Chairman of the Environment Protection Committee of the National District Attorneys Association, emphasized the need to improve training opportunities for investigators, inspectors, lawyers and technical staff. Other witnesses stressed the importance of an increase in criminal investigators.

I am especially pleased that the National District Attorneys association, in a resolution to the President, supported an increase in the number of EPA criminal investigators to 175 and the establishment of a National Enforcement Training Institute.

Jud Starr, who is the former head of the Justice Department's environmental crimes section and will testify again today, also pointed out the weaknesses in EPA's program created by the woefully inadequate number of investigators. Currently, he testified, cases are investigated by EPA only after the violations are discovered and the harm is done. This means that EPA is always in a reactive posture and that few cases are the product of reasoned or targeted focus on suspected wrongdoing. He testified that, "as a consequence, EPA's limited resources are not directed toward uncovering practices which would provide the greatest public exposure and deterrence." However, with more criminal investigators, EPA would be

able to bring cases that would have greater deterrent value than those currently being brought.

With the proposed increase in the number of criminal and civil investigators and an increased emphasis on training of law enforcement personnel, I am hopeful that the enforcement of our environmental laws will be strengthened and greater compliance with the laws will occur.

Finally, I believe the proposal to authorize EPA to hire 50 civil investigators will not only strengthen compliance with our laws, but will do so in a cost-effective manner. Investigators are used to track down witnesses; they also provide critical support for court cases. Currently, however, EPA is too often required to rely on outside consultants to help develop cases. As a member of the Governmental Affairs Committee, I have heard extensive testimony that EPA's reliance on contractors is not cost-effective. This legislation will help ensure that EPA's reliance on outside consultants is decreased.

Senator BURDICK. Without objection, the statement of Senator Harry Reid will be received at this time. Also a statement by our colleague John Chafee will be received at this time.

[The statements referred to follow:]

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

I commend the Committee Chairman for his decision to raise these issues on environmental research and development, and enforcement to the forefront at this time.

In our enthusiasm to come to grips with our degraded environment, and to mandate that regulations be promulgated to protect sensitive ecosystems, environmental resources and related values, we may need to reconsider the attention we are giving to the front and back ends of this process.

The technical foundation on which environmental regulations are based must be firm to be effective; this clearly requires a full-scope and fully integrated R&D program.

Without vigorous and even-handed enforcement to ensure compliance with environmental laws and expedited action to deal with violations, our efforts to protect the health of our public and the protection of our environment are impaired.

These bills, S. 2371 and S. 2176, draw our attention to the full breadth of the environmental regulatory process.

After Earth Day activities, during which many of us have recommitted ourselves to improving the state of the environment and to improving the quality of life, with our eager anticipation of enactment of a long-overdue and comprehensive Clean Air bill this session, and with our prospective look toward the Senate's upcoming deliberation on elevating EPA to cabinet-level rank, it is only fitting that such issues be considered at this time.

Senators Bradley and Lieberman and their cosponsors on these bills should be commended for raising these issues before the Senate; it is a common belief that they have been given short shrift in the last decade.

I have a particular interest in these issues, both personally and as the Subcommittee Chairman on matters related to research and development and environmental oversight.

I am pleased to see that interest on long-term environmental research activities is shared by more of my colleagues today. S. 2371 is an attempt to focus on the clear differences that exist between confirmatory research for regulatory and other governmental purposes, and fundamental research for the purpose of advancing our understanding of science.

This bill affords us the opportunity to be mindful of the differences between reactive research intended to mitigate an emerging crisis in the environment or in the regulatory process, and proactive research intended to provide a greater understanding of the issue, to provide tools to manage environmental resources or implement programs, and, perhaps, to prevent a problem from occurring at all.

With the emphasis that we see today on the plight of the environment and ecosystems, it is apparent to us that more coordination among research entities is needed. Well-intended research efforts among public and private institutions may be duplicative in a number of areas while other areas, sorely in need of attention, go unaddressed. In a period of scarce resources that are expected to go farther and farther, we need to encourage coordination without stifling creativity.

S. 2371 proposes that a study be undertaken to evaluate the concept of a National Institute of Environmental Research and the definition of scope for such a concept.

While it is important to evaluate this concept, it is even more important that those providing guidance to Congress be the appropriate individuals and organizations. We will have questions on this issue so that a record may be developed on the course of action to take.

When questioned on this concept, the Environmental Protection Agency stated that it recognized that a "more coordinated and extensive environmental and longer term research effort is needed" and had planned to hold public meetings to help develop the framework for future research plans. The EPA does not yet have the corner on the market of good ideas. While it is encouraging that the EPA is seeking advice, could the result of this activity be considered independent?

During the hearings in the Committee on Governmental Affairs on S. 2006, legislation to elevate EPA to cabinet-level rank, the National Academy of Public Administration provided valuable insight on the organizational concerns for the new department.

I believe that some consideration should be given to obtaining NAPA's recommendations should there be concern on the structure that such institutes would take.

The analogous experience of the National Institutes of Health should be considered in our deliberations. The relationship of and funding for this concept, and this includes a feasibility study to determine whether it is needed and the nature of its mission, will be fraught with the problems the NIH has faced over the years.

The relationship of an institute to government and the problem of attracting eminent professionals and scholars given pay caps are but a few of the issues that should be addressed.

I would like to emphasize that I believe the manner in which research is funded, conducted, reviewed, and reported ranks with the importance of the research activity itself. Without integrity and ethical behavior in research, we will always be faced with the often quoted phrase on data and researchers: "figures don't lie, liars figure." All too often we became familiar with the alleged distortion of data and information. The concept of the National Institutes is inviting for this reason as well.

I expect that Senator Bradley and the other witnesses today will provide some insight on these issues. There is little doubt that we need to do more and less doubt that we would like to do more. But if we are to do more, as suggested by this bill, it should be done right.

I believe that S. 2176 is a good effort to begin aggressive pursuit of criminal acts in violation of environmental laws. As an outgrowth of hearings held before my Subcommittee we need to provide the resources required to have an effective enforcement program. With the action to redefine a number of violations to felonies, the workload for EPA's criminal investigators has increased markedly. We cannot expect that such an increase in workload can be addressed with the limited criminal investigative staff at EPA today.

I am interested to know whether the staffing level and training process proposed in this bill will be sufficient to get out in front of the problem. An enforcement program with no teeth is no enforcement program at all.

It is important to send an unambiguous message to those contemplating violating environmental laws that they will be found out, they will be investigated, and they will be prosecuted to the fullest extent of the law. I believe this bill will capture the attention of those that need to worry now, and will deter others from considering illegal acts in the future.

There is a fundamental issue that we need to consider with this bill: funding. I am concerned with the concept of establishing funding levels on the basis of enforcement activities.

Clearly, authority to levy penalties (civil and criminal) is granted to enforce the law; I am receptive to hearing the rationale and justification for using the amount of penalties collected to set the basis for an authorization for appropriation. A vicious cycle may be established with this kind of action.

In a similar vein, proposals to redirect penalties from the general treasury to community activities infringes on the enforcement process. Enforcement actions are meant to be a deterrent to the violator and the industry. They are not intended to provide an opportunity for an offender to appear as though it was community-spirited; this would clearly send the wrong message.

I thank the Chairman and look forward to the testimony on these important issues.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Mr. Chairman, I would like to take just a few moments to voice my strong support for this bill that would increase the ability of the EPA to discover and correct violations of our environmental statutes. As we all know, diligent enforcement is the key toward continued progress toward a cleaner environment. We can pass copious quantities of strong and comprehensive environmental legislation, but the effect of that legislation will be negligible unless EPA has the tools needed to enforce the requirements set out in those bills.

Accordingly, this bill would increase the number of investigators employed by the EPA to investigate both civil and criminal violations of the clean air, clean water, and hazardous waste statutes. In addition, it would create a new National Enforcement Training Institute that would help to educate a new generation of Federal, State, and local inspectors, experts, investigators, and lawyers in the skills needed to ferret out environmental violations and bring violators to justice.

There is no doubt that this is a worthy goal. We need to be sure that EPA enjoys the resources necessary to enforce the full panoply of our environmental laws. And I believe that we should do our level best to ensure that the money is available to further this goal. To that end, this bill provides that up to 50 percent of the penalties collected by the EPA from those who violate the law can be directed toward funding enhanced enforcement.

Mr. Chairman, the question of funding mechanisms often is a delicate subject, and it may be that some would prefer us to craft an alternative mechanism in this bill for funding purposes. I do not have a magic solution to the "funding mechanism" conundrum—but I would encourage everyone involved in this issue to work together to devise a sensible approach so that we can get on with the main work at hand. We simply must enforce our environmental laws vigorously, and that is what this bill is designed to encourage.

So, Mr. Chairman, I welcome this opportunity to speak in support of this measure, and I am very pleased that so many of my colleagues on the Environment Committee have joined with Senator Lieberman and with me to cosponsor this bill. I also note with pleasure that my friend from California, Senator Wilson, joined us as an original cosponsor. I am looking forward to the testimony today and hope to provide several questions to witnesses at the appropriate time.

Senator BURDICK. Now we will hear from our first witnesses.

Mr. Bradley.

STATEMENT OF HON. BILL BRADLEY, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Mr. BRADLEY. Thank you very much, Mr. Chairman. I'm very pleased to have a chance to join Congressman Saxton in testifying before the committee today.

It's an unfortunate fact of life that most of our environmental policy is reactive. It's the disasters that repeatedly show our inadequacies and our imperfect understanding of man's relationship to the environment.

Not long ago I stood on the Banks of the Arthur Kill in New Jersey. This heavily travelled waterway has been the sight of not one, but multiple oil spills just this year. Each of these spills exposed yet another loophole in the law that is supposed to protect our environment.

Today I hope—and it is my hope—that we look to the future and we build a foundation to address the major environmental challenges that we're going to face, and that we assess what steps we can take now to prevent the environmental disasters of tomorrow.

We know too well that our every day actions have implications far beyond tomorrow, the next year, or even the next decade. For example, the Super fund Law—of which Senator Lautenberg, I, and many others who have worked on it are quite proud—is a multi-

billion dollar effort to address an unfortunate inheritance of industrial and public environmental neglect.

This sort of inheritance is not what I have in mind for our children. We can do better. The National Institute of Environmental Research is a part of that effort.

Mr. Chairman, this legislation promotes a simple concept: a rational and steadfast approach to long term environmental research. It's time to acknowledge, through a comprehensive research program, that we humans have a lot of neighbors who too often are overlooked or harmed by our actions. If we are to continue living in a healthy world with its diversity of species and natural beauty, we need to learn better how to treat our collective home with respect and understanding.

Clearly the National Institute of Environmental Research proposal is intended to supplement and compliment our existing programs and efforts. These existing research efforts, which must continue and are important, have been dominated by media-specific issues—for example, air and water pollution—and human health concerns. They are important. However, in spite of the recent increase in funding for global warming research, which itself underscores how ill prepared we are to set and maintain research priorities, ecological and global concerns remain glaring holes in our research agenda.

For example, our efforts to address oil spills focus on the short term aquatic affects, but in the estuarian eco-system oil wastes often settle and destroy shell fish, disrupt food chains, obliterate nesting areas, and kill off food sources for birds and important sport and commercial fishes.

These subtle effects are often easy and convenient to disregard. If we understand the full cost of our actions—whether inadvertent or otherwise—if we fail to understand that full cost, we will inadequately safeguard our natural legacy. We cannot estimate these costs until we appreciate the subtle effects and changes in natural systems.

Mr. Chairman, today you will hear from some of the earth scientists who are struggling to overcome this general neglect. They know much better than I of the short- and long-term impacts of inaction. Within this scientific community there appears to be an emerging consensus that the National Institute of Health can be an effective model for comprehensive research strategy on the environment. I believe that a National Institute of Environmental Research could, like the National Institutes of Health, consist of problem oriented institutes or centers dealing with specific areas. The institutes would encourage and support funding for competitive research by academic institutions, non-profit organizations, and industry.

These efforts would have two positive results. First, competitive research efforts would yield the best and most effective use of funding. Second, by working through our educational institutions we would ensure the development of a necessary intellectual infrastructure. As we consider the mounting challenges ahead, I think this last component cannot be underestimated.

Mr. Chairman, the legislation that is before the committee today calls on the National Academy of Sciences to examine these issues

and report to Congress on the feasibility, merits, and general need for this National Institute on Environmental Research. This report will be due in one year. It's clear that many agencies and independent scientists can and should play a role in the establishment of this institute. The EPA, the National Oceanic and Atmospheric Administration, the National Science Foundation, the United States Geological Survey, the Forest Service, the Fish and Wildlife Service, and the President's Council on Environmental Quality are among the many Federal groups that have a legitimate role to play and deserve the opportunity to contribute to an institute's development.

The National Academy is perhaps the organization I think best suited to assemble the Nation's finest minds and develop the critical review and research strategy.

In the scheme of things, this legislation is really a kind of small fish. It's not a gigantic dollar amount. It's not an ambitious regulatory effort. The EPA, in testimony before the House Science Committee, lauded the goals of this effort, but opposed the action.

According to the EPA, they said, "The EPA is developing proposals for alternative institutional arrangements. EPA has recently embarked on an effort to strengthen long-term research."

Well, Mr. Chairman, maybe things are getting better, but I wouldn't take their word for it. I urge you to listen closely to the scientific testimony that you'll hear today. Dedicated young professionals and scientists are starving for necessary support. As we see in here during Earth Week, there's wide spread interest, energy, and need. A National Institute which reaches out to our universities, which advocates a global perspective, and which promotes a balanced and steadfast research agenda could be an essential part of a strategy for a healthier planet.

I thank the Chairman for allowing me to testify.

Senator BURDICK. Thank you very much, Senator Bradley, for taking the time to come and testify at this hearing today. We appreciate it very much.

Congressman Saxton.

STATEMENT OF HON. H. JAMES SAXTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. SAXTON. Mr. Chairman, I thank you. Let me begin by commending you, sir, for your interest in this subject and for the fact that you were willing to call this hearing at such an early date.

I'm pleased to appear here with my colleague, Senator Bradley from New Jersey, and I must say that I think his testimony hit the nail directly on the head as to the explanation of this matter and particularly his bill and the importance and almost emergent nature of the subject that we're here to discuss today.

My testimony will follow his because I think we're in very close agreement. As a matter of fact, I would venture to say that all of the proponents of this approach share in the common belief that a consensus is in the process of being formed as to what this should look like. We have disagreements. As a matter of fact, we all call this institute something different. The bill that I sponsored that was attached to the bill which passed the House not long ago as an

amendment to raise the EPA status to a Department status is called the National Environmental Institute. Senator Bradley's approach is to call it the National Institute for Environmental Research. Others call it the National Institute for the Environment. That to me is probably the serious difference that we have. I think we can straighten that out forthrightly and proceed with what's important.

I'd like to expand on one aspect of Senator Bradley's testimony, if I may, and that is namely that the Senator stated that it's time to change the way we do business when it comes to environmental policy, creating environmental policy, addressing environmental issues, and solving environmental problems. Let me tell you why I think that.

Since I've been in the Congress—and I'm now in my sixth year—I have seen many environmental issues come to the floor as things that are very, very important to deal with; we've dealt with the Super Fund to clean up contaminated ground water; we've dealt with sludge dumping off New Jersey's coast; we've dealt with the subject of medical waste and a shore issue in New Jersey which was referred to by Senator Bradley. We are currently dealing with a Clean Air bill.

Let me suggest that all of these issues have something in common and there is a strain through which we have attended to these issues, and that is that in every case—and in almost every environmental issue that you and I can talk about today—there is something that we do in common with each of them. Senator Bradley mentioned that too.

When it comes to the Super Fund, we reacted to what society has let occur over the years. We have dumped chemicals into the ground and it has gotten into our underground water supplies, and we've reacted with legislation—reactive legislation that, in that case, we call the Super Fund.

When it comes to clean air, we have permitted our automobile exhaust and our stationary sources of air pollution to continue throughout the years. In some cases we turned our head while in other cases we said, "Well, there's no proof that it's harmful to the environment." Today we're in the process of putting in place a Clean Air Act which is a reaction to something that society and all of us have let occur.

When it came to medical waste and sludge dumping on the New Jersey shore, again, it was all of us collectively as a society who permitted those things to happen until it reached crisis proportion and then the Congress of the United States had to enact reactive laws to deal with situations that we should not have let occur to begin with.

Today and tomorrow we're going to be dealing with other reactive legislation—reactive legislation for the issue that we generally refer to as global warming. Again, this is something that is a result of practices of human beings on the planet Earth that we have permitted to go on too long.

The issue of ozone depletion, another issue that we're going to have to address in a reactive way because, again, we're dealing with what I call an ambulance squad mentality when we deal with our very important environmental issues. I would suggest to you,

Mr. Chairman, and other gentlemen of the panel, that it doesn't have to be this way. It doesn't have to be this way at all. In our system of Government we have created mechanisms through which we can deal with issues like these in proactive ways, futuristic ways, in long term policy programs that don't necessarily have to carry the label of reactive.

Let me give you a good example of how this has happened through the National Institutes of Health. 103 years ago, we, as a society, identified a problem that we, as a society, needed to deal with—the general category of healthful issues in our society. We recognized that people were sick and dying because of illnesses, and we recognized that we had the inability in our current structure at that time to deal with them. So we, as a society, again, created the National Institutes of Health. Look at what has happened in a proactive sense since we've done that.

Years ago, not many years ago, anyone who contracted the disease of cancer could expect to die. Today, because of the policies carried through by the National Institutes of Health, more than 50 percent of the people diagnosed with various types of malignancies are curable. When it comes to heart attack, one of the big killers of Americans, an array of drugs that prevent heart attacks—and when they do occur, prevent death after heart attack—have been developed in a proactive sense to help save lives by the National Institutes of Health.

Asbestos today has been identified—never was before—but today, through the efforts of people in the National Institutes of Health, has been identified as a leading cause of cancer. The benefits of that I think speak for themselves.

We talk also about magnetic resonance imaging, which is something in the imaging technologies that made the process of cat scan possible.

And there have been many vaccines that have been developed through the functions of the National Institutes of Health. In 1969, the vaccine for German Measles, which was of unparalleled significance to unborn babies and pregnant women, was discovered. In 1977, the National Institutes of Health grant resulted in a vaccine for certain types of pneumonia to save lives further. Today, one of the greatest concerns that we all share is what we're going to do with AIDS and AIDS victims. AZT, the most useful agent yet in combatting the effects of AIDS, was developed by the National Institutes of Health.

So I make the point today that the environment today—perhaps as healthful issues were important 103 years ago—the approach that we can use with the establishment of an institute, either within or outside the EPA or the Department of Environmental Protection, is an essential ingredient in changing the way we do environmental business. It can aid us as policy makers in having more information at our fingertips and in front of us when we make those important decisions and cast our vote as to how we're going to deal in the future with these issues.

I believe it's time to turn from the reactive tendencies of today, the reactive tendencies of the past, and move on toward a proactive environmental policy only to be accomplished, I believe, through a National Environmental Institute.

Thank you, Mr. Chairman.

Senator BURDICK. Thank you.

The Senator from Florida.

Senator GRAHAM. I have no questions, Mr. Chairman.

Senator BURDICK. I have some questions unrelated to the subject, but I'll hold them for private discussion.

Thank you very much for being here with us today.

Senator BRADLEY. Mr. Chairman, let me thank you so much for your consideration and also for the signal that you just sent about those private conversations. [Laughter.]

Senator BRADLEY. I would like, if it would be permitted, to submit to the record, a letter from Dr. Frank Press of the National Academy of Sciences. It is directed to you, but I would like to have it as part of the record since you have already seen it, if I could.

Senator BURDICK. Without objection, it will be received as part of the record.

[The letter referred to follows:]

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE, NW WASHINGTON, D.C. 20418

OFFICE OF THE PRESIDENT

April 23, 1990

The Honorable Quentin Burdick, Chairman
Committee on Environment and Public Works
458 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

In connection with the Committee's hearing tomorrow on Senator Bradley's legislation, S. 2371, I wish to advise you of our views on the role assigned to the National Academy of Sciences in studying and advising Congress on arrangements for the conduct of environmental research.

The Academy and our principal operating arm, the National Research Council (NRC), are, as you know, congressionally chartered to advise the government on the technical and scientific aspects of public policy issues. Frequently, we are asked for such counsel directly by Congress in legislation. If S. 2371 designates the Academy to undertake a study, identifies an Executive Branch agency to make arrangements for it, and is enacted, we would certainly attempt to design a study that is responsive to congressional concerns and to negotiate mutually acceptable funding and other terms.

The NRC is well suited to evaluating the current state of research and training in the broad range of fields relevant to understanding environmental degradation and improving environmental protection. Further, we could examine support for such activities across agencies and internationally, assess the role of interdisciplinary work, estimate the resources required for a first-class capability in environmental fields, and recommend improvements in mechanisms such as intramural research and extramural grants to investigator-initiated research projects. Finally, if particular institutional arrangements, such as the proposed National Environmental Research Institute, have clear implications for the conduct and quality of research and training, we could elaborate those implications.

I hope that these comments are helpful to the Committee.

Sincerely,

Frank Press

Frank Press
President

cc: The Honorable Bill Bradley

Mr. SAXTON. Mr. Chairman, I would just like to thank you for your time here and your interest in the subject here today. I would only add that after a number of visits on my part to the old executive building, it appears that the Administration has withdrawn whatever objection they may have had to this subject which were prevalent in the beginning of the discussion of it. I would just commend that for your consideration.

Thank you very much.

Senator BURDICK. Thank you, gentlemen.

The committee will take this matter up very soon.

I would like to acknowledge receipt of statements from Senators Simon and Wilson. They will be made part of the record at this point.

[The statement referred to follows:]

PAUL SIMON
ILLINOIS

COMMITTEES
LABOR AND HUMAN RESOURCES
JUDICIARY
FOREIGN RELATIONS
BUDGET

United States Senate
WASHINGTON, DC 20510

TESTIMONY BY SENATOR PAUL SIMON
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
April 24, 1990

THANK YOU MR. CHAIRMAN.

I AM GLAD TO BE HERE TODAY TO TESTIFY ON BEHALF OF S. 2176, THE POLLUTION PROSECUTION BILL. I WANT TO COMMEND MY DISTINGUISHED COLLEAGUE SENATOR LIEBERMAN FOR INTRODUCING THIS BILL, AND I ALSO WANT TO THANK HIM FOR ALLOWING ME TO BE A COSPONSOR.

MR. CHAIRMAN, THIS BILL WILL SIGNIFICANTLY INCREASE THE NUMBER OF CRIMINAL INVESTIGATORS AT THE ENVIRONMENTAL PROTECTION AGENCY.

CURRENTLY, THE NUMBER OF INVESTIGATORS IS ABOUT FORTY-EIGHT TO FIFTY. THAT IS ABOUT ONE FOR EVERY STATE.

THIS IS UNACCEPTABLE. WE MUST MOVE TOWARDS A MORE SERIOUS APPROACH IN ENFORCING THE ENVIRONMENTAL LAWS THAT ARE ON THE BOOKS, AS WELL AS THE NEW LAWS WE WILL PUT ON THE BOOKS THIS YEAR.

THIS BILL WOULD INCREASE THE NUMBER OF INVESTIGATORS TO 171 IN THE NEXT FIVE YEARS.

MR. CHAIRMAN, EVEN THIS MAY SEEM TO BE A SMALL NUMBER, GIVEN THE POTENTIAL CASES THAT EXIST -- BUT IT IS A STEP IN THE RIGHT DIRECTION.

I WOULD LIKE TO ADD THAT THIS HAS BEEN STRONGLY ENDORSED BY THE NATIONAL DISTRICT ATTORNEYS ASSOCIATION.

UNDER THIS BILL, THE EPA WOULD ALSO BE INSTRUCTED TO HIRE 50 CIVIL INVESTIGATORS TO ASSIST IN THE DEVELOPMENT AND PROSECUTION OF CIVIL AND ADMINISTRATIVE ACTIONS.

CURRENTLY, THE EPA HAS ABOUT ONE CIVIL INVESTIGATOR PER REGION. AND THE BULK OF THEIR WORK IS DEVOTED TO SUPERFUND. OFTEN TIMES, THE EPA IS FORCED TO HIRE OUTSIDE HELP, SUCH AS PRIVATE INVESTIGATORS, IN ORDER TO HELP DEVELOP CASES.

THIS BILL ADDRESSES THAT PROBLEM. IT SHOULD ALSO HELP US SAVE MONEY BY REDUCING THE NEED FOR OUTSIDE CONSULTANTS.

ANOTHER ASPECT OF THIS BILL INSTRUCTS THE EPA ADMINISTRATOR TO ESTABLISH A NATIONAL ENFORCEMENT INSTITUTE. THE PURPOSE OF THIS INSTITUTE WOULD BE TO TRAIN FEDERAL, STATE, AND LOCAL LAWYERS, INSPECTORS, CIVIL AND CRIMINAL INVESTIGATORS AND TECHNICAL EXPERTS IN THE ENFORCEMENT OF ENVIRONMENTAL LAWS.

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250 West Cherry
Room 115-B
Carbondale, IL 62901
618/457-3653

THIS IS ANOTHER INITIATIVE THAT THE NATIONAL DISTRICT ATTORNEYS ASSOCIATION SUPPORTS AND HIGH RANKING OFFICIALS OF THE EPA ARE ALSO SUPPORTIVE.

THE FUNDING ASPECT OF THIS BILL IS ALSO A REASONABLE APPROACH. IT WOULD BE FUNDED BY $10 MILLION, OR 50 PERCENT OF THE PENALTIES IMPOSED BY THE EPA ON VIOLATORS OF ENVIRONMENTAL LAWS.

I WISH WE MIGHT FIND THERE WERE SO FEW VIOLATIONS THAT WE WOULD NEED A $10 MILLION DOLLAR APPROPRIATION TO FUND THE PROGRAMS OUTLINED IN THIS BILL. UNFORTUNATELY, IT IS MY GUESS WE WILL FIND MORE VIOLATIONS THAN WE WOULD LIKE.

MR. CHAIRMAN, PUBLIC AWARENESS ON ENVIRONMENTAL ISSUES IS AT AN ALL-TIME HIGH, AND PEOPLE SHOULD CONTINUE TO BE INTERESTED AND INVOLVED IN SAVING OUR ENVIRONMENT. I WAS GLAD TO SEE SO MANY PEOPLE INVOLVED IN THE 20TH ANNIVERSARY OF EARTH DAY THIS PAST SUNDAY.

I WAS EVEN MORE ENCOURAGED TO SEE SO MANY OF MY COLLEAGUES INVOLVED IN EARTH DAY 1990.

I HAVE BEEN A STRONG SUPPORTER OF ENVIRONMENTAL ISSUES, NOT ONLY IN THE U.S. HOUSE AND SENATE, BUT ALSO IN THE ILLINOIS LEGISLATURE, WHILE I WAS A MEMBER OF THAT ASSEMBLY.

I REGRET TO SAY THIS, BUT THERE WERE TIMES WHEN NOT MANY OF US WERE STANDING UP FOR ENVIRONMENTAL LEGISLATION -- CALLING FOR LAWS THAT WOULD MOVE US TOWARDS A BETTER ENVIRONMENT, AND PREVENTING THE POLLUTION OF OUR NATION'S WATER, AIR AND LAND.

I AM GLAD, HOWEVER, TO SEE MORE ELECTED OFFICIALS STANDING WITH US NOW.

NOT THAT LONG AGO, WHEN PRESIDENT GEORGE BUSH WAS VICE PRESIDENT GEORGE BUSH, THIS TYPE OF BILL WOULD, PERHAPS, HAVE BEEN SUBJECTED TO A VETO THREAT BY PRESIDENT RONALD REAGAN -- THE PRESIDENT WHOSE BEST KNOWN ENVIRONMENTAL STATEMENT WAS, "TREES POLLUTE." AND WHO KNOWS WHETHER OR NOT WE COULD HAVE OVERRIDDEN SUCH A VETO.

TODAY, I BELIEVE PUBLIC SUPPORT FOR THIS TYPE OF BILL WILL PROVE TO BE OVERWHELMING. I FULLY EXPECT THIS BILL TO PASS. I NOTE THAT THIS ADMINISTRATION HAS INDICATED SUPPORT FOR THIS TYPE OF LEGISLATION.

I HOPE THE ATTITUDE FOUND AMONG ADMINISTRATION OFFICIALS AND MY COLLEAGUES, IN THE HOUSE AND SENATE, ON ENVIRONMENTAL ISSUES IS NOT A SHORT-LIVED ONE. FOR SOME, THE LEVEL OF INTEREST IS SOMEWHAT RECENT. BUT FOR THOSE OF US WHO HAVE LONG HAD THIS LEVEL OF INTEREST, WE SAY, "IT'S GOOD TO HAVE YOUR SUPPORT. WE NEED IT."

TESTIMONY BY

THE HONORABLE PETE WILSON
UNITED STATES SENATOR (R-CA)

BEFORE THE

ENVIRONMENT AND PUBLIC WORKS COMMITTEE

APRIL 24, 1990

Mr. Chairman, Mr. Ranking Member, Members of the Committee:

I am delighted to testify today in favor of the Pollution Prosecution Act of 1990. I am proud to be an original cosponsor of this legislation. I consider its passage to be vital to a viable environmental enforcement program.

This legislation will increase the number of EPA criminal and civil investigators, as well as establish a training institute to prepare lawyers, inspectors, and investigators to prosecute environmental crimes.

I support strong environmental regulation -- laws that have teeth. This bill has something more. This proposed law has law enforcement muscle. It pumps iron by mandating a 30% increase for each of the next five years for criminal investigators.

The national program of environmental law enforcement is paltry with fewer than forty-five full-time criminal investigators. Those polluters who willfully violate EPA statutes break law with virtual impunity, often believing they will not be caught.

This bill evens the score.

Strong criminal enforcement encourages compliance because it deters polluters through fear of imprisonment and fines. While both corporations and individuals pay penalties for environmental violations, only individuals can go to prison -- a sanction that no one can pass along to the American consumer as just another cost of doing business.

Environmental regulations and laws must be more than paper tigers. The environment is too important to be trusted to an honor system. The existence of a strong criminal enforcement program acts as a strong motivator to both people and companies to comply with environmental statutes.

EPA currently employs only 41 full-time criminal investigators. These special agents have full law enforcement authority to make arrests, carry firearms, as well as execute arrest and search warrants.

Only about one-quarter of the states have active environmental enforcement programs. Most states exclusively rely on EPA to investigate and prosecute environmental crime in their state.

The current complement of EPA criminal investigators is too small to investigate every legitimate tip brought to their attention.

EPA currently refers cases to the FBI. And EPA enjoys an excellent working relationship with the FBI. The FBI performs yeoman service by providing front-line coverage where EPA's investigators cannot adequately cover important environmental investigations.

But there is a special need for the unique function of an environmental investigatory "SWAT" team. Tracking down criminals who illegally abandon unlabelled, leaky drums of toxic wastes involves specialized investigative techniques different from those used to apprehend espionage agents, embezzlers, and bank robbers. Environmental crimes leave their unique sets of fingerprints. It should also be noted parenthetically that this frees up FBI agents to deal with those crimes which they are best trained to pursue.

This needed environmental program is expected to pay for itself. Even considering the modest level of resources allocated to criminal enforcement to date, its achievements are remarkable. At present levels, environmental criminal enforcement collects about $7.5 million per year.

The cost of the environmental investigators will, in effect, be funded by fines collected. If this bill is enacted, not only will the polluter pay, but his fine will be invested in a most effective deterrent program. The equation is simple: more enforcement, more fines.

This bill will also provide for a National Enforcement Training Institute to train state officials in the enforcement of environmental laws. Environmental protection is a shared responsibility between the federal government and the states. But with fewer than one-quarter of the states prepared to assume that function, it makes sense for the federal expertise in environmental detective work and enforcement to be shared with the states. The cost of this Training Institute will also be offset from fines paid by polluters.

I urge this Committee to pass this important legislative proposal. A dramatic increase in the number of EPA criminal and civil investigators, as well as the development of a training program to facilitate the emergence of state enforcement programs will add sum and substance to the strong environmental restoration program to which we all are committed.

Senator BURDICK. Our next witness will be Dr. Lovejoy. You may proceed as you wish.

STATEMENT OF THOMAS E. LOVEJOY, PRESIDENT, SOCIETY FOR CONSERVATION BIOLOGY, WASHINGTON, DC

Mr. LOVEJOY. Thank you, Mr. Chairman, for your kind words and for the opportunity to testify here today with respect to S. 2371.

I come here in my capacity as president of the Society for Conservation Biology, a society which is but three years old and is itself an indication of the need for greater support for environmental research. This is a society about scientific research that arose spontaneously within the scientific community and grew rapidly to over 2,000 scientists taking part in a space of two years, which is very unusual.

I think the basic point is that there is a real need for an entity which can overcome what is largely a fragmented exercise in research. Admittedly, important and worthwhile research is going on in different institutions and agencies, public and private, in universities, et cetera across the country, but without any satisfactory overview lodged in any organization. There are indeed many things to be concerned about when one looks at environmental research, not the least of which is that as multiple stresses are put on the environment very often, there are links, between these different kinds of stresses and synergies which may never become apparent unless there is an over all organized approach to the research enterprise.

There is certainly important research supported by the National Science Foundation, for example, but it is largely restricted to basic research and the actual amount of money available is not all that great.

So what we need is an institute which can work within an overview and which will not only undertake research itself, but also support extramural research. I think this is a very important point, to engage the best scientific minds in the country, not only in the Government, but from the universities and other research institutions which can best be supported by extramural grant programs with competitive peer review processes involved to ensure that this goes to the highest quality applicants.

I had the opportunity to talk about this proposal for an institute with my colleague, Maxine Singer, now president of the Carnegie Institution in Washington, who for 20 years or so has been one of the most prominent scientists at the National Institutes of Health. She described to me how very effective the National Institutes of Health model has been and registered very strong enthusiasm about creating something along these lines in support of environmental research.

Clearly there will have to be a way to include social sciences in whatever the ultimate products will be because it is evident to everyone, I'm sure, that the agenda will be dominated for decades to come by the intersection of economics and environmental considerations.

These are not easy topics. It is far easier, for example, to estimate the cost of reducing CO_2 emissions by whatever percent one chooses as opposed to estimating what the cost will be if global climate change is allowed to proceed. We need to do a lot more research before we can understand those kinds of questions that are really at the center of a lot of things that society will have to be facing.

I applaud the idea of the National Academy of Sciences conducting such a study. It is highly qualified and knows how to draw on the best scientific talent to undertake such studies. They will be able to take into account existing and proposed activities such as some of those in biological diversity.

In the last analysis, what it comes down to is that many of these problems don't matter unless they affect biological processes. And we definitely know but only in a very fragmentary and superficial way, that they do affect processes of biology of the life sciences, .

The bill talks about a 12 month study. I would urge you to consider a shorter time, perhaps nine months. These problems are very large and are getting larger all the time. We certainly know that it's cheaper to deal with them sooner than it is later. It's possible as well—I don't have an authoritative opinion on this—it may need a little more money than is actually provided for in the bill.

In the last analysis, I'm very pleased, not only to testify about this bill, but also to do it in a hearing that is going to be looking at a bill about enforcement. I am acutely aware, because of my work in developing nations, of the impact of our example. It would be unfortunate if this very needed exercise would ever be interpreted as an excuse to use research as a way to avoid action. We really need to be proceeding on both fronts at the same time.

But I think also that we have the ability here to lead the world in terms of environmental research. And frankly, as I look at the global environmental problems, we must lead the world because no other nation is capable of doing it.

Thank you very much.

Senator BURDICK. Thank you.

The Senator from Florida.

Senator GRAHAM. Thank you, Mr. Chairman.

Dr. Lovejoy, I think there is general agreement as to the need for enhanced research in the environmental sciences. This particular bill is essentially a public administration bill in that it sets up a process which will result in a recommendation back to the Congress as to how best to institutionalize that enhanced research.

The concern that I have is that I see a gap between the research and its impact at the nexus of economics and environment, which is public policy decision making. We've had an example of that recently in the Clean Air Act. Over the past decade, the Federal Government has spent a half billion dollars on an acid deposition study which was to increase our scientific base of knowledge for a Clean Air Act. I may be overstating the case, but I think it's fair to represent that that acid deposition study had relatively little impact on the Clean Air bill that has moved through Congress thus far.

I'm concerned about structuring this review of our research capability in a manner that will have enhancements to our public policy decision making as a key objective.

Having said that as a comment, I'm concerned that the review that we here had authorized is essentially aimed at one model of that research organization, and that is the National Institutes of Health model. There are other models. One that comes to mind is the Lane Grant College model that has been used in agriculture.

My concern is, are we starting the process of trying to decide what kind of research model with the answer already in mind, or do you see this legislation giving to the National Academy of Sciences a broad portfolio in terms of alternative research models that can be explored?

Mr. LOVEJOY. My view is that really you're charging the Academy to look at environmental research because of the importance of it to public policy. It's just a matter of how the charge is given to the Academy as to whether they have that foremost in their mind. I think they can because the value of the National Institutes of Health model is that it is indeed very flexible and a lot of the research that is supported by the National Institutes of Health is not conducted by the National Institutes of Health; it is conducted in universities across the land.

I once, myself, many, many years ago, had a National Institutes of Health grant to look at viruses in the Amazon Basin. That went through Yale University at that time.

I think there's a lot of flexibility there, and if the report language is clear to the Academy, they will take that into account.

Senator LIEBERMAN. Mr. Chairman, very briefly, let me just take the personal pleasure of welcoming Dr. Lovejoy who was my classmate at Yale, and to express, for the record, the pride that I certainly feel in the tremendous work that he's done in protecting the environment and the leadership role that you've played.

I'd like to ask you one quick question. In the fabric of the Federal structure here, where do you see this institute—if we can call it that for a minute—fitting in? Should it be under the new Department of Environmental Protection which we expect will be created this year? Or should it be free standing and somewhere else?

Mr. LOVEJOY. I guess, in one sense, my own personal preference would be to have something that's free standing. On the other hand, that kind of thing tends to proliferate in Government. I would just make the point that if it is lodged within EPA that there be the minimal amount of layering between the institute and the new Secretary of the Environment, perhaps an Under Secretary for Science or something of that sort, so that the information flows right to the top and avoids some of the little vectors of policy that can sometimes twist research.

Senator LIEBERMAN. The National Institutes of Health is under the HHS right now, is it not?

Mr. LOVEJOY. That's right.

Senator LIEBERMAN. Are there too many layers between that and the Secretary?

Mr. LOVEJOY. I recently was part of the discussion of the President's Council of Advisors in Science and Technology talking about the state of the National Institutes of Health. The National Institutes of Health's greatest problem at the moment is that it really doesn't have an appointed director as an acting director. But there

also was a sense from my colleagues who know these things far better, that it would be better if it went straight to the Secretary.

Senator LIEBERMAN. Thank you.

Senator BURDICK. Thank you very much.

Mr. LOVEJOY. Thank you, sir.

Senator BURDICK. The next witness will be Mr. Del Tufo, Attorney General from the State of New Jersey.

Welcome to the committee.

STATEMENT OF ROBERT J. DEL TUFO, ATTORNEY GENERAL, STATE OF NEW JERSEY, ACCOMPANIED BY STEVEN J. MADONNA, ENVIRONMENTAL PROSECUTOR FOR THE STATE OF NEW JERSEY

Mr. DEL TUFO. Thank you, Mr. Chairman.

Senator BURDICK. You may proceed.

Mr. DEL TUFO. Thank you, Mr. Chairman, members of the committee, and Senator, former Attorney General, Lieberman.

Senator LIEBERMAN. Good morning.

Mr. DEL TUFO. Thank you very much for also taking Mr. Madonna and myself out of order.

We're here to talk to S. 2176 and have submitted some written testimony so we'll be very brief in these oral remarks.

First of all, if I may, I'd like to introduce Steve Madonna who has had a distinguished career in law enforcement in the State of New Jersey, and is the new Environmental Prosecutor appointed by Governor Florio just a couple of months ago. The Environmental Prosecutor's role is to undertake increased enforcement, both civil and criminal, in significant cases in New Jersey, and also to forge a coherent dialogue and an integrated enforcement system among the many agencies that have enforcement responsibilities in the environmental area.

With the Chair's permission, I have a copy of Executive Order Number 2, which was signed by Governor Florio, creating this position and I'd like to make it a part of the record in case it might be of some interest to the committee at some point.

Senator BURDICK. It will be received, without objection.

Mr. DEL TUFO. I would also, with the Chair's permission, offer the testimony of my colleague, Skip Humphrey, the Attorney General for the State of Minnesota, who has some prepared remarks to be entered into the record.

Senator BURDICK. It will be received, without objection.

Mr. DEL TUFO. New Jersey has been very active in the environmental arena for 15 years now, but we assuredly would welcome a partnership. I think we work well with the Federal authorities, but we would welcome an even more active partnership with a more intense Federal effort in New Jersey. I know that those States which are not so far along in terms of civil and criminal environmental enforcement absolutely require an increased Federal emphasis on such activities.

In fact, the National Association of Attorneys General, by resolution adopted in November of 1989, support the concept of additional investigative resources on the Federal level as well as the cre-

ation of this training institute. I believe these support the legislation that Senator Lieberman is sponsoring.

As you well know, the legislation would provide approximately 200 additional criminal investigators over the next five years and 50 civil investigators at once. It may be, in the last analysis, that much more should be provided at the Federal level, but this is certainly a welcome infusion of strength.

A very important aspect of the bill is the training mechanism. No one can really enforce the environmental law, neither criminally or civilly, without this investigative component. Part of investigation in an environmental setting happens to be very tough, and sometimes very boring, police work in the usual sense of the word, surveillance and the like. Much of it, however, involves some type of technical expertise and some technical training in scientific matters and in the unique evidence gathering mechanisms and the unique crime scenes which attend environmental settings and environmental violations.

It's very important in this training effort also to identify for State and local officials the indicia of what to look for when one may see some type of environmental violation taking place, or when a health inspector, for example, might be making a routine public welfare inspection for some other reason and come across an environmental violation.

I know that the Environmental Prosecutor's Office is interested in this type of training for State and local officials. With the permission of the Chair, I'd like to have Mr. Madonna address that point very briefly.

Mr. MADONNA. Mr. Chairman, if I may?

Senator BURDICK. You may proceed.

Curiously enough, in 1984, as the then Chief of Environmental Prosecutions, I appeared before the Senate permanent subcommittee on Crime and expressed some concerns about certain conclusions being reached with respect to organized crime infiltration into the hazardous waste industry. At that time I suggested that the reasons for caution lie in the fact that the level of awareness and training in law enforcement in general was, unfortunately, woefully lacking to the point where I did not feel that we could rely on the conclusions being reached to accurately reflect the conditions of organized crime's activities in the Country.

Here I am, with pleasure, today to speak on behalf of this same subject and that is that we strongly commend the initiative that this bill reflects to improve the training of all levels of law enforcement from the States Attorneys General, their investigative teams, the State police, the county prosecutors and their investigators, and right down to the local police, fire, health, and code enforcement officers. Obviously the levels of training vary. The local people need a general sensitivity and awareness to be able to absorb and bring into the system their observations. The upper levels of country prosecutors and State Attorneys General need the ability to investigate these cases and put them together for prosecution.

We applaud the direction of this bill and strongly encourage that it move forward to put into place such a training institute.

Thank you very much, Mr. Chairman.

Senator BURDICK. Thank you.

Mr. DEL TUFO. Thank you for your courtesies, Mr. Chairman.

Senator BURDICK. I just have one question for the Attorney General.

In your opinion, how important is it for the State's efforts that local enforcement agencies participate in environmental enforcement efforts?

Mr. DEL TUFO. I believe it's very important. From the investigative side, having Federal investigators ferreting out possible activity for either State or Federal enforcement activities is important to the States. And assuredly, from the standpoint of training State and local officials from the top down on what to look for, how to investigate these types of cases, and how to put both civil and criminal cases together is essential if we're going to really deal effectively with cleaning up the environmental problems that confront us in this Country today.

Most of the enforcement activity at this time comes from the States. More needs to be done and this training is essential.

Senator BURDICK. Thank you. Thank you both.

Mr. MADONNA. Thank you very much.

Senator LIEBERMAN. Mr. Chairman, if I——

Senator BURDICK. Excuse me.

Senator LIEBERMAN [assuming Chair]. If I may, I would like to welcome both Attorney General Del Tufo and Mr. Madonna and thank you for your support of the bill. You both really come, with a note from my previous incarnation, with tremendous reputations as lawyers and law enforcers. Mr. Madonna did some work in New Jersey, and I think all of us viewed it as courageous and a model for what might be done in this area.

Let me just ask you, if I may take the liberty—how much time do you have?

Mr. DEL TUFO. Whatever you need.

Senator LIEBERMAN. I don't want to have you miss your plane. I have two questions. The first question is what kinds of trends would you say that you see now in criminal law enforcement in environmental matters? In other words, we've heard from EPA that they are now targeting repeat civil offenders, perhaps looking at what they're calling multi-media offenders. What is happening at the State level now that might be of interest to us in terms of the targeting of your efforts?

Mr. DEL TUFO. Again, I think it depends on where you are and how far along the State is in terms of putting together both its civil and criminal enforcement. But by and large I would say that there is an increasing trend to prosecute criminally for environmental violations. This certainly has been the trend in the northeast, in our neck of the woods, and it certainly has been the trend in New Jersey, both from a Federal and State standpoint.

We're getting to the point where it's fine that chronic offenders as companies are prosecuted and fined, but we really see that the enforcement efforts and the interests of the environment are better served if individuals are brought to the bar of justice to deal with acts that they have undertaken, or inaction that has taken place in their administration of the affairs of these companies. In the last

analysis, that type of deterrent effect, retributative effect, is very important.

Indeed, the cases are even getting to the point now, Senator, in the criminal area, where either an evil act, or a failure to act under circumstances in which one should have acted, and even under circumstances when one has a responsibility to act because of being in charge of environmental efforts, will lead to criminal liability and responsibility. I think once people realize that this is the type of enforcement that will take place, they will feel better served to get out there, address the environmental problems, and try to take care of them before it reaches exacerbated levels.

Senator LIEBERMAN. I think you make a very strong point. There's been a lot of talk lately about a new focus in the next decade on pollution prevention. It's a great idea to have people step forward and figure out how to prevent the problem in the first place, but that's not really going to happen effectively, in my opinion, unless people know that there is a deterrent and retribution at the other end. Unless they have an incentive—apart from what we hope is their desire to do the right thing and keep the environment clean—but that there is a sense that if you don't do it, there's not only going to be embarrassment, but there will also be criminal penalties, just as you said, directly applied to individuals.

That's why I feel what you said is very important.

Mr. DEL TUFO. I think there are a lot of companies that are becoming very responsible and are doing audits and are out there trying to clean up the situation.

Senator LIEBERMAN. Right.

Mr. DEL TUFO. Assuredly that type of deterrent activity is necessary.

I might add also that there have been a number of suits in which executives have been held personally responsible for clean up costs. Hitting one both in terms of liberty and the pocketbook has a kind of very effective dual type of impact.

In New Jersey we have a statute called ECRA which upon the transfer of any industrial property requires a clean up. This has had a marked effect in having people tend to address the problems in advance before a property goes on the market.

Senator LIEBERMAN. Let me just ask you one more question which ties into what we've said.

One of the things I know we have confronted in Connecticut and I wonder whether you have seen some changes in that recently. As we tried to move toward criminal enforcement of environmental law it took some time to get judges to accept this because the people coming before them—if I can put it this way—didn't look like criminals. There was some reluctance to really impose the penalties that the law provided. I'm wondering what you're seeing about the receptivity of the Judicial Branch to applying criminal penalties in environmental cases.

Mr. DEL TUFO. I think there's an increased receptivity.

Steven.

Mr. MADONNA. I think I would agree and I think it is unfortunately the result of some of the recent and continuing environmental tragedies, so to speak, that we have seen that everyone is becoming more sensitive to it, as is the Judiciary as well. By structur-

ing indictments whenever possible to include counts that permit the admission of evidence of such environmental degradation, to use those kind of counts when possible to illustrate the nature of the problem, I think then you get to almost like an achilles tendon where you bring this out of the aura of white collar crime into something that's tangibly wrong. I think we're seeing the Judiciary act that way.

Senator LIEBERMAN. Well said.

I thank you both very much. I don't know if you're aware of this, but an amendment similar to this bill was attached in the House to the bill creating the Department of Environmental Protection and it was supported at that point by the Administration, so I think we have a fair chance to have this adopted. If it does continue to move along, I hope that we can keep in touch about your ideas on how to make it work. You're both national leaders in this field.

Mr. DEL TUFO. Thank you very much, Senator. It's our pleasure to be here and I certainly hope this moves along as you forecast.

Senator LIEBERMAN. Thank you.

Mr. MADONNA. Thank you, Senator. If we can be of any assistance in the future, we would be pleased to provide any assistance necessary to make this idea work.

Senator LIEBERMAN. I hope you have a safe trip back.

Mr. DEL TUFO. Thank you.

Senator LIEBERMAN. We're going to call Mr. Bretthauer now to testify on the earlier bill.

Thank you for appearing before us today. We all look forward to hearing your testimony.

Good morning. Thank you for being here. We look forward now to your oral testimony and then I'll have some questions.

STATEMENT OF ERICH W. BRETTHAUER, ASSISTANT ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT, ENVIRONMENTAL PROTECTION AGENCY

Mr. BRETTHAUER. Thank you, Mr. Chairman.

I'm pleased to discuss with you the concepts included in S. 2371 related to a National Institutes for Environmental Research.

Overall, I strongly concur with the importance placed upon research funding and training of scientific personnel for this Nation to appropriately address a number of its important environmental problems. We are facing a host of significant and extremely complex environmental threats which need to be better understood.

However, the specific study proposed in S. 2371 may be somewhat premature and indeed duplicative of the requirement for a comprehensive study of Federal environmental organization and management included in both the House and Senate versions of EPA cabinet status legislation. Therefore, we do not support passage of S. 2371.

As part of our current efforts, we are evaluating the concept of an environmental research institute and developing proposals for alternative institutional arrangements to sustain a long term program of ecological research. An essential part of this process is consideration of the role of EPA's laboratories and the many important research programs that they are now conducting. It is critical-

ly important that we maximize the enormous talent and the work having been done at other Federal agencies, universities, and in the private sector, and develop truly coordinated and complimentary efforts among these institutions.

Accordingly, we are making a priority this year of conducting and concluding extensive consultation with broad scientific community on this topic. We plan to sponsor public meetings in at least three geographic areas to ensure that all interested parties have the opportunity to express their views. This consultation process taking place over the next several months will serve as input to the Administration and will assist in making decisions on the most appropriate organization and structure for EPA's long term ecological research program.

EPA has recently embarked on an effort to strengthen long term research. In 1989 we organized our long term research program to strengthen EPA's ability to anticipate future environmental programs. This initial program includes research to identify, collect, and analyze environmental monitoring data and report on the status and trends of this Nation's ecosystem. Also additional funding has been provided for the exploratory research grants program.

Funding for EPA's multi-media long term research program has been increased by almost $23 million this year and in fiscal year 1991 we are requesting an additional $22 million.

We appreciate your interest and leadership in this area, and we would be pleased to share with you the insight and information we receive during this process and to discuss our views on alternative institutional structures that result from these activities.

Mr. Chairman, that concludes my prepared remarks. I'd be pleased to answer any questions you might have.

Senator LIEBERMAN. I appreciate your statement, Mr. Bretthauer. Let me see if I can clarify why EPA and the Administration are opposed to this proposal and in doing so, let me just ask you to respond to some of the testimony offered here earlier that EPA doesn't have the capacity to do the kind of basic research that is contemplated in S. 2371, the bill that we're considering now.

Mr. BRETTHAUER. Mr. Chairman, I believe that need to dramatically increase coordination activities, and provide additional funding and manpower—in ecological research. These elements are extremely important to adequately address this Nation's important ecological threats. The optimum organizational structure for pursuing this is not year clear. We are pursuing a path recommended by EPA's Science Advisory Board to consider an ecological institute. We are proceeding with a series of open meetings trying to engage the university community, and other interested individuals in a discussion to determine the most optimum organizational structure.

Senator LIEBERMAN. Do you see it as basically serving the same function as the institute that might be created under this bill would serve?

Mr. BRETTHAUER. We'd like to discuss with them and hear from them as to the most appropriate arrangement of an institute whether it be indeed free standing, as some have proposed; whether it be concentrated simply on the ecological research activities; whether a consortium of universities or some other appropriate

mechanism which indeed utilizes the current existing expertise and talent in the Federal work force and in the on going funded Federal activities in our universities and colleges.

Senator LIEBERMAN. So—and I don't want to put words in your mouth—I'm hearing you say that you think there is a need here.

Mr. BRETTHAUER. That is correct.

Senator LIEBERMAN. There is a need for some system of approaching basic research structure. But you're skeptical about this proposal and would prefer to go along the track that EPA has initiated.

Mr. BRETTHAUER. We have a track that we're comfortable with. All of our work will be completed by June, prior to the Administration's preparation of it's fiscal year 1992 budget proposal. We're confident that we'll be able to make an appropriate recommendation within that time period.

Senator LIEBERMAN. Were you here when Congressman Saxton testified?

Mr. BRETTHAUER. Yes, I was.

Senator LIEBERMAN. I was under the impression that he said that the Administration supported this bill. Am I wrong?

Mr. BRETTHAUER. Well, obviously this is a matter of a great deal of discussion within the Administration.

Senator LIEBERMAN. Yes.

Mr. BRETTHAUER. As of yesterday afternoon, it was my understanding that the Administration had not changed its position in respect to this piece of legislation.

Senator LIEBERMAN. In other words, the Administration is sticking with the position that you've expressed?

Mr. BRETTHAUER. That's correct.

Senator LIEBERMAN. So unless Congressman Saxton had a later word, you'd say that yours—I think we should check back with them—but that yours is the accurate position of the Administration?

Mr. BRETTHAUER. I believe it is, yes.

Senator LIEBERMAN. Let me ask one other more detailed question. One of the problems that we keep confronting is the difficulty that the Federal Government has in attracting top notch scientists within the limits of the Governmental pay scale. Do you think that one of the advantages of a separate institute—however we get to that end—would be the ability to pay higher salaries to attract the best talent?

Mr. BRETTHAUER. I do, Senator. In certain areas we are indeed having difficulty with Federal pay schedules, recruiting the type of talent that we need in our Federal laboratories. I believe it's not only EPA but that it is also true of many other research components in the Federal Government.

Senator LIEBERMAN. I appreciate your testimony. We're going to be in touch. Thank you for being here today.

[A letter from Mr. Bretthauer follows:]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 3 1990

OFFICE OF
RESEARCH AND DEVELOPMENT

Honorable Quentin N. Burdick
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

To amend and clarify the record of my testimony before your committee on April 24, the official administration position is that we support S.2371 as introduced by Senator Bill Bradley.

Sincerely yours,

Erich Bretthauer

Erich W. Bretthauer
Assistant Administrator
for Research and Development

cc: Senator Bill Bradley
Honorable Jim Saxton

Senator LIEBERMAN. Dr. Howe is the last witness to testify on S. 2371. We appreciate your patience in going out of order, and the same to you, Mr. Bretthauer, in deference to Attorney General Del Tufo's need to return to New Jersey.

We welcome your testimony at this time.

STATEMENT OF HENRY F. HOWE, COCHAIR, COMMITTEE FOR THE NATIONAL INSTITUTES FOR THE ENVIRONMENT, CHICAGO, IL

Mr. HOWE. Thank you, Mr. Chairman and committee. I appreciate the opportunity to speak on behalf of S. 2371 for the Committee for the National Institutes for the Environment.

I am an ecologist. My background is in tropical ecology. Actually, Tom Lovejoy, in a previous era, funded my first tropical study through the World Wildlife Fund. I appreciate his help for that formative experience. Since then my work has been supported by the National Science Foundation, now for a new research interest in restoration ecology by USDA.

Since the first Earth Day, 1.5 billion people have been added to the human population. That is one new person for every two. During that time of 20 years, the awareness of environmental issues has increased immeasurably. Many old issues that were unaddressed previously have become increasingly worse and we now recognize new issues that are just on the horizon.

The Committee for the National Institute for the Environment formed to address two basic issues drawing scientists from all States, and just recently acquired the endorsement of the National Association for Land Grant Colleges, which of course has a presence in all 50 States.

The first issue is that there are a tremendous variety of issues that neither the EPA nor any other organization in Government addresses with scientific research. Second, the university system in the environmental sciences is eroding rather quickly. We are losing faculty positions, and we're losing the capacity to train scientists to do the job of the future.

The concept of the National Institute for the Environment is a series of problem oriented institutes modeled after the National Institutes of Health. The reason we model it after the National Institutes of Health, in our vision, is because the National Institutes of Health really works. It has created a tremendous infrastructure within the United States university system. Like NIH, NIE institutes would support competitive grants through universities and non-academic research institutions.

Our proposal, which we have put out for you, is one view in short form of our ideas. Our needs statement of about 40 single spaced pages produced by our committee is another view of what we think these institutes should be. Basically, the bottom line is that these should be extramural funding agencies, they should be competitive, merit-based funding agencies, and they should address permanent problems that our society faces to give the permanence that the EPA has never managed to involve in its research programs.

For instance, no one in Government is sponsoring the development of biotic resources. Within the United States there are sever-

al billion dollars of medicinal products from plants that grow here. In the tropics there are potentially hundreds of billions of dollars worth of products. No one is developing them to the degree that they should be developed before they become extinct. Indeed, no one even knows what species of potential value exist, much less what they might yield in value to our society.

The second major issue, as an educator, that concerns me is the education and training aspect of the environmental sciences as they exist. In the United States, universities set their priorities according to Government priorities of funding. So, for instance, since the 1940s, the biomedical sciences have essentially displaced most environmental sciences in biology departments in many of the leading universities of the Country, including your alma mater, Mr. Chairman.

As of the present time, about 1 percent of the $9 billion that goes to extramural research is in environmental biology, about 12 percent in environmental sciences in general, and about 55 percent to biomedical sciences. Even in the new global change program, which I think is really inspired, a maximum of 9 percent—in my calculations and figures, 2 percent—of the research is slated for human problems, economic adjustments to changes which are likely to be enormous.

In other words, the Government gives low priority to extramural research in the environmental sciences. That has led to an erosion of faculty positions, an erosion of graduate programs, and the simple fact that we are not training the right kinds of scientists to perform the tasks of the future. Neither EPA nor other agencies have put enough money into our educational system to change the agendas of these fields.

The National Institute for the Environment would do that for the university system in the same way that the National Institutes of Health has done it for the biomedical sciences. NIE would create an educated public of scientists through thousands and thousands of courses. It would also create a scientific constituency outside of Government which can address issues that Government executive agencies choose not to address.

The third issue is NIE structure. I am not an expert in public policy—but I do know that the National Institutes of Health has worked. That is why our committee settled on the NIH model as the best one to start with. The National Institute for the Environment could be a stand alone agency like NSF or EPA, or it could be a major research unit of the Department of the Environment. Our proposal was set up for a free standing agency. Obviously if it were part of the Department of the Environment we would have to add institutes to fit some of the present EPA interests, such as an Institute for Hazardous Waste.

The bottom line, again, is that NIE needs autonomy from political exigency, which has so destroyed the credibility of EPA extramural funding over the years. And we would want an extramural agency which would give people a chance to build a career on EPA research. The question here, of course, is whether the Department of the Environment should be strictly a regulatory agency, or more than that.

Fourth, I want to speak to the bill itself. An independent study by the National Academy of Sciences would do a great deal that an agency study simply cannot do. An agency study cannot avoid the bias of the agency. I was in the military once. I am perfectly aware that when the General says that the sky is pink, then it's pink. I think that's the way it works in executive agencies.

So we call for a National Academy study as a way of bringing the best minds of the Country to bear on a very broad range of issues—not just an ecology institute like the EPA's proposed institute. The proposed EPA Ecology Institute is an enlightened idea, but it is old time ecology and rather narrowly focused as we understand it. But the NAS study should focus on a broad range of issues to decide how a permanent set of institutes can be set up to do for the environmental sciences what the National Institutes of Health has done so successfully for the biomedical sciences.

Lastly, I want to mention that, if successful, the National Institute for the Environment will accomplish what the National Institutes of Health has done. It will create a literate constituency and it will create a body of scientific experts outside of Government, not under executive constraint, who can speak to whatever issues come up. As I wrote in my written testimony, if the Surgeon General tried to pass off ideology in the name of science it simply couldn't wash. There would be tens of thousands of well-educated, opinionated scientists throughout the medical schools of our Country, throughout the biology departments of our Country, who would simply argue him down to the ground. It would be impossible for the Executive Branch, through some sort of political fluke, to decide and say that smoking was wonderful for people.

So we propose an alternative to H.R. 3847's difficulty with an independent statistics agency, not under executive control, which might bring about a veto. We propose a tried and true alternative that works very well within the medical community as a series of institutes which build up our infrastructure, produces the scientists that we need, produces the science we need, and acts as a pluralistic check on whatever executive excess might occur in the future.

I lastly want to comment that the name of this committee is actually quite appropriate. We are talking about environmental sciences, but this is also a public works project. Every single State would benefit. Anyone in a university or non-academic research institute who wanted to write a proposal, and was capable of doing it, would have it considered. That is a breadth that the NSF and the National Institutes of Health have allowed to occur throughout this Country and it has been amazingly successful.

I will say that certain States will do well which haven't done well. For instance, there are some States that did not climb on the molecular biology band wagon early, and a lot of those places would be the first ones to pick up a major windfall from something that supports what we call organismal biology, ecology, forestry, fisheries, wildlife, and so on. Also, large diversified university systems, of course, will be able to take advantage of NIE quickly.

But the whole issue here is to do what the EPA and other environmental agencies have never done, that is to set the agenda within the university system to produce the science and the people that we need now and in the future.

Thank you very much.

Senator LIEBERMAN. Thank you, Dr. Howe.

Let me ask you why you think that EPA has not done that up until this time? Has it been a lack of funding, or a lack of focus, or a lack of appropriately trained personnel?

Mr. HOWE. All of the above, sir.

Senator LIEBERMAN. That seems like a reasonable answer to me.

Mr. HOWE. Let me just comment on it a bit further.

I don't even know where we got it, but we have an evaluation of the EPA's exploratory research grant program which has a wonderful series of interviews at the back. The EPA has been interested for years in its exploratory research program—it wants to increase its extramural research—but it has had a great deal of trouble. The trouble stems from low funding and fluctuating funding which has eroded the credibility of the agency in the eyes of university administrators and scientists.

Let me read one comment by Bernard Goldstein who was once Assistant EPA Administrator for Research. "Perhaps the best way to summarize the impact of the EPA Grants Incentives Program is that it might have been better if it had never been started at all. The expectations raised in academic circles have been replaced by antagonism." He goes on to say that, "there simply hasn't been a steady enough funding with permanent goals which people could adjust themselves to."

Another interview by Peter Richardson from the University of California, Davis, "a low absolute amounts of research expenditures and their fluctuations by EPA mean that no university researcher can build a career substantially in the basis of EPA's support. In my circles people simply don't bother with the EPA. Usually the notices come about two weeks before the grant is due. Any academic knows that it takes many weeks to write a grant. And any academic knows that it isn't worth the time to do it if the program will disappear in a year or two."

That's the other problem, low funding. Shifting political priorities have pretty much destroyed the credibility of the EPA has an external funding agency. So what we suggest is that a National Academy study would give the credibility to the study that the study actually has to have.

Second, the National Academy study, which is now enthusiastically endorsed by the National Academy, would allow us to see where the real holes are and, working with EPA, come up with a set of organizations that would do the job.

Senator LIEBERMAN. Thank you for your testimony. You have been very helpful.

I'd like to now call the remaining witnesses on the Prosecution bill to come up and sit on one panel and we can have a general discussion as we go on.

James Strock is first, Assistant Administrator for Enforcement at EPA, Don Mielke is the District Attorney from Golden, California, Jud Starr, attorney, and Robert Adler, the Senior Staff Attorney with the Natural Resources Defense Council.

Again we appreciate the presence of each of you here. Written testimony that you have submitted or have will certainly be printed in full in the record and I'd like to give each of you an opportu-

nity to make a brief opening statement and then we'll have some discussion.

Let's begin with Mr. Strock.

STATEMENT OF JAMES M. STROCK, ASSISTANT ADMINISTRATOR FOR ENFORCEMENT, ENVIRONMENTAL PROTECTION AGENCY

Mr. STROCK. Thank you, Senator. It's good to be here this morning and to see you again.

Senator LIEBERMAN. Thank you.

Mr. STROCK. I would like to submit the longer statement for the record and make several more specific points.

One, I'm honored to appear before you this morning to express the Administration's support for S. 2176 with specific exception which I would like to outline. We believe that this bill places proper and necessary emphasis on the enforcement of our Nation's environmental laws.

EPA endorses, without qualification, the goal of enhanced criminal enforcement because we believe that there is, quite simply, no more powerful tool in our enforcement arsenal. The existence of criminal enforcement motivates people and companies to bring themselves within EPA's overall regulatory scheme in a way that civil, judicial, and administrative enforcement rarely can do alone.

While both corporations and individuals pay penalties for environmental violations, only individuals can spend time in a prison cell, a sanction that no one can pass along to the consumer as merely another cost of doing business.

As you know, EPA currently employs 54 full time criminal investigators, special agents who now have full law enforcement authority from the 100th Congress to make arrests, carry firearms, and execute arrests and search warrants. To meet increasing demands for investigations of larger and more complex scope, and given the increasing number of leads, the number of investigators has been increased over the past three years from 47 in fiscal year 1989 to 61 for fiscal year 1991. We continue to seek increases in the total number in the years ahead.

We believe that continued budget emphasis in this area is appropriate because the achievements of EPA's criminal program is today very impressive by any measure. Since 1983 more than 450 defendants have been charged with environmental criminal offenses and more than 300 defendants have pleaded guilty or been convicted. Individual defendants have been ordered to spend over 650 months in jail because of environmental crimes. Most importantly, the number of defendants convicted has risen dramatically from 28 in 1983 to 78 in 1989.

What is more, the numbers show that criminal enforcement through the collection of fines comes close to paying for itself. At present levels, criminal enforcement is, on average, collecting from 50 percent to 80 percent of the total cost of the criminal enforcement program at EPA. We can't project in the future that this level should increase further because of the tougher sentencing recommendations from the U.S. Sentencing Commission. In short, we believe that criminal enforcement is a wise investment of public resources.

Further, the administrator, the deputy, and I would also note with appreciation your proposal to establish a National Enforcement Training Institute. This is an area that EPA has identified as a need to expand upon existing training efforts. We are currently studying this institute concept to see how it might improve on existing training programs.

I would like to close by mentioning two specific aspects which present difficulties for the Administration. The bill includes a pollution prosecution fund which would support the purposes of the bill by the use of the money from penalties collected. Although the goals of the bill are laudable and we support them, the Administration opposes any such earmarking of specific funds.

As an alternative, we would advocate a more effective use of line item appropriations in the fiscal year 1992 budget. While the fiscal year 1991 budget process is nearing its end, the fiscal year 1992 process is literally beginning at this time and we believe that it would be an appropriate time for a line item to better segregate these very important needs that you've identified.

Further, we would strongly oppose any statutory prescription of FTE levels. The Administration uniformly opposes this because they could deny program managers needed flexibility to determine appropriate staffing levels for specific activities in the midst of constantly changing challenges.

In closing I would like to say that we appreciate the opportunity to present our views to you this morning. We believe that this bill is timely and important to improving environmental enforcement and we support the bill if it could be amended as suggested by our comments today.

Thank you.

Senator LIEBERMAN. Thank you, Mr. Strock. Thank you particularly for the Administration's support of the proposal and for the general focus that you're putting on criminal enforcement.

While it's in my mind and in yours, let me just ask you to explain a little bit more about that second objection about the full time equivalency levels. Is there a similar provision in the amendment to the House bill on this point?

Mr. STROCK. To my recollection there was a similar provision in the House bill.

Senator LIEBERMAN. In other words, similar to what I've proposed here?

Mr. STROCK. Yes, that's correct, Senator. There clearly is some complication, given the Administration's support for that amendment on the House side, and its support for strength and enforcement over all with these more uniform cross cutting executive prerogative issues. The Administration would strongly urge that such be removed.

Senator LIEBERMAN. Okay, we'll continue to talk about that. I appreciate it. Why don't we move on.

Mr. Mielke, I think in the original announcement you were next. We thank you so much for your appearance here this morning and look forward to hearing your testimony.

STATEMENT OF DONALD E. MIELKE, DISTRICT ATTORNEY, FIRST JUDICIAL DISTRICT ATTORNEY'S OFFICE, GOLDEN, CO

Mr. MIELKE. Thank you, Senator. I'm Don Mielke. I'm the elected District Attorney in a jurisdiction just west of Denver of about a half million people consisting of Jefferson and Gilpin Counties.

I want to thank you for your gracious invitation to a local prosecutor to appear at these hearings. The full text of my remarks are already before you, which I ask to be a part of the record.

Senator LIEBERMAN. It will be done.

Mr. MIELKE. I want to summarize some of the most important points of those remarks.

I believe it's appropriate that this hearing follows the environmental awareness of Earth Day. Now is the time for action. It is also appropriate that this hearing is during the Crime Victims Rights Week, recognizing that the environment has been a crime victim.

Senator, our citizens have increasingly come to expect local officials to deal with hazardous material crime. There is a growing public sentiment that persons and corporations who illegally dump hazardous materials are as dangerous to society as traditional street criminals and ought to be treated as such. Their concerns are well founded. Who knows what cancers, birth defects, or other problems may appear years after an environmental crime is committed.

Senator, many local prosecutors across the Country are becoming more sensitive to the need for vigorous enforcement of the pollution laws. Unfortunately, only a relatively small number of investigators and District Attorneys are trained in the special techniques involved for successful environmental prosecution. Even the most able prosecutors and well trained investigators need the strong support of a sophisticated laboratory, a resource which is rarely available at the State and local level.

For the past several years, local law enforcement officials have found a real friend in the Environmental Protection Agency. The agency's National Enforcement Investigation Center in Lakewood, Colorado has provided us with scientific support and investigative leadership which has made a number of local criminal prosecutions possible.

Unfortunately, the resources of EPA have been strained beyond the breaking point both in the investigative and in the scientific support area. As you know, there are a limited number of investigators there to serve the entire Country. The National Enforcement Investigation Center can only investigate a fraction of the cases referred to it. The laboratory is so busy that my office was recently forced to use a private lab at great expense because of the EPA backlog. I'm afraid that some prosecutors will avoid these cases altogether if they are confronted with significant private lab expenses.

Even the training resources of EPA have been taxed beyond reason. Although the agency offers an excellent curriculum for State and local officials at the Federal facility in Glenco, Georgia, only a small number of local enforcement officers have received the training in the past three years. Literally hundreds of local de-

tectives need this program every year. I'm very fortunate that one of my investigators recently, one of the officers from the City of Lakewood, and one of our deputy sheriffs, have received that training. But there are a small number that have been trained and could be trained nationally. We need a much greater number.

Now is the time for Congress to strongly support an expansion and enhancement of the EPA's criminal law enforcement capability. Your bill, Senator, has those components in it. S. 2176, the Pollution Prosecution bill, would greatly increase the number of EPA special agents and create the National Training Institute. I strongly urge support for such a measure.

The National District Attorney's Association, at our 1989 Fall board meeting, passed a resolution, which I have attached to my written comments, urging Congress to adopt that legislation. We, the District Attorneys of the Nation, ask Congress to make this quantum leap forward in enforcement.

Congress also needs to favor the consideration of legislation on enhancing the capability of the labs. In a real sense, the EPA lab is like the FBI lab of the 1960s. Police agencies from across the Country sent the FBI scientific evidence which could not be processed locally. If this training could be enhanced, if the Training Institute could train those technical supportive people, especially in our local health departments or our State criminal labs, we think that would be a great enhancement for the future.

As the committee considers the priorities for enforcement and deals with the various issues in this bill and the whole area of environmental law violations, talking about civil versus criminal—and some people feel that the best way to approach this is a civil process. My experience is that they are wrong. Some polluters seem to consider civil injunctions and fines as just a part of the cost of doing business. But they cannot pass personal fines or jail time to consumers or the bottom line.

It wasn't until the introduction of potential criminal penalties that some of the true polluters started paying attention. Criminal enforcement, perhaps, has been the greatest impact on environmental enforcement, the greatest deterrent effect, of any action to date.

With the effectiveness of the criminal process in mind, I'm pleased to tell you of the effectiveness of the Federal operation of the National Enforcement Investigation Center. We think that combination of criminal investigators and scientific support is just a National asset. I would strongly urge the expansion of that capability, the expansion of the criminal investigators, and expansion with the training institute as you proposed in S. 2176.

I've also heard rumors of the NEIC possibly being separated or broken up, or divided between the investigators and the scientific area, and I urge resistance in making any move like that. I'd also urge that the proposed National Training Institute be located with the National Enforcement Investigation Center in Lakewood, Colorado. I think that makes economic sense and you'd have the technical people there to do part of the training.

I also urge that whatever training is there, or the training at Glenco, Georgia, to be expanded to probably 500 investigators every year. I think that there is that need across the Nation.

Also, Senator, there is a communication gap. Criminal law enforcement of environmental crimes is often difficult and State and local prosecutors need to be able to share that information and to know what other jurisdictions are doing. As a result, there needs to be some sort of a National Center for Local Prosecution on Environmental Crime, some sort of networking device, that will help us communicate with each other. Hopefully this new training institute would also help that need because I assume it would have some publications and other type of information flow that would close that communication gap.

I've outlined in my remarks some concepts for your consideration. Fine sharing—States can share fines like California and Ohio do at the present with local government. Can't the Federal Government do the same thing with the fines in the Federal law? The need for model State statutes and the need for joint task forces. One of the great things that you'd be able to do with the increased number of criminal investigators is to increase those joint task forces because the example right now that EPA and the National Enforcement Investigation Center has in Seattle is working great with local officials and we can expand that whole concept.

Also some other areas that I think you maybe should add to your bill would be civil forfeiture. We use it a great deal in the drug area. If there was a civil forfeiture power in the environmental laws, I think you would really get some people's attention. I think that might be a component that you might want to add or consider.

And finally, Senator, you mentioned the Waiver of Sovereign Immunity bill, which I believe is also being considered. Hopefully it will be considered here on the Senate side. The National District Attorneys have passed a resolution urging Congress to adopt that legislation and I've attached it to my written remarks. I would urge the adoption of the Waiver of Sovereign Immunity in Federal facilities and within Federal enclaves. The Federal Government, Federal contractors, and their employees have concealed themselves behind a cloak of sovereign immunity and should be fully accountable to the public even to the extent that they become subject to criminal sanctions under existing State environmental laws.

In closing, Senator, I think the day will come when the investigation and prosecution of environmental crimes is commonplace. As our constituents at every level are becoming increasingly aware of the immediate and long term hazards posed by criminal polluters, you and I will be expected to develop creative and effective ways to approach the problem. I sincerely hope that ours will be the generation of public officials which is remembered as the first to fully act on the realization that the environment itself can be a crime victim.

Thank you very much for the opportunity to appear here today.

Senator LIEBERMAN. Thank you. That was really outstanding. You have some very interesting ideas.

Just out of curiosity, how would you react to the proposal for a lab of some kind that was comparable to the role that the EPA plays, a more active role by EPA in this area?

Mr. STROCK. Separately from the National Enforcement Investigation Center lab?

I guess I misunderstood.

Mr. MIELKE. Senator, to more fully explain, my written remarks talked about how the National Enforcement Investigation Center lab in Colorado does both criminal and civil, whereas the regional labs only do civil. I think if the lab just did criminal like the FBI lab did, or the regional labs also did criminal, we would need that because not only do we need the lab support but we need the expert testimony. It would probably be inefficient for lab technicians to testify in Florida flying from Colorado, but if the regional labs could also do criminal, then we could have the enhancability of testing as well as the expert testimony.

Senator LIEBERMAN. What do you think?

Mr. STROCK. I'd like to be able to get back to you on that in writing, if I could.

Senator LIEBERMAN. Sure, that's an interesting idea.

Also—maybe not to be discussed now—but the one that I'm going to play with is the civil forfeiture proposal which is a very interesting thought.

Mr. Starr, welcome. It's nice to see you again. Thank you for being here.

STATEMENT OF JUDSON W. STARR, ESQ., VENABLE, BAETJER, HOWARD & CIVILETTI

Mr. STARR. It's nice to see you, Senator, and thank you for the invitation. You have my congratulations for doing the impossible in the environmental arena; among others, you have managed to bring Federal, State and local public interest groups together under one umbrella here to agree on a single issue. That's unheard of in the environmental arena.

Given the limited time and what appears to be the unanimous support for your very worthy bill, I would like to briefly share with you those observations I have made in the year and a half since I left the Justice Department, where for 10 years I was directly involved in the development of the Federal program to prosecute environmental crimes.

When I left the Department of Justice, I was concerned that the work I had accomplished might prove irrelevant. I have since discovered, however, that, in actuality, the threat of criminal prosecution in the environmental area has probably done more to change the environmental compliance habits across the board than any other particular tool that the Federal, State, or local governments might use.

Senator LIEBERMAN. In other words, you're hearing that from people in the private sector.

Mr. STARR. Yes, I am hearing that internally. I can give you anecdotal information. Let me give you the best one I know. Recently I found myself shocked to answer the question of a CEO of a major Fortune Forty company by explaining the irrelevance of the fact that the levels of command between the CEO and the individual who had been identified as a target of a federal criminal investigation were three steps. In other words, there were three people between he and the potential wrong doer. When he realized how easy it would be for that information to flow directly at his doorstep, I

saw that company, in a miraculously short period of time, turn all of its attention towards environmental compliance in a way that I don't think would have been accomplished otherwise.

As we all know, environmental compliance requires capital investment on which a company does not receive a return. Operations generally are the highest order of the day, productivity is the higher order of the day, and environmental compliance has traditionally been the low cat on the totem pole.

What I see is that that is changing. What an environmental criminal investigator does when he first comes in and looks at a company and sees how it operates, is to look at that juncture where environmental compliance and operations meet. He then generally finds where the smoke is and learns that the fire was caused by the fact that production, productivity, and operations won out time and time again over the tension between that and environmental compliance.

What I see now is how environmental crimes has entirely shifted the pendulum for the regulated community. There was a period of time in our Country where it was better not to know what was going on at your facilities with respect to environmental compliance. What everybody is saying here today and what I know in fact from what I've observed on the inside, is that it is better to know now. And that means from the top levels on down, one must be aware of one's company's environmental status. There is too much fear that just sitting back and not knowing is going to lead to criminal liability.

I think it was unheard of 10 years ago to think that anybody could be going to jail for violation of the environmental law. That is not the case today. I see that criminal enforcement is being used to change a very important societal interest in that regard.

More specifically, I'd like to discuss the backbone of the Environmental Crimes Program for criminal investigators. You, yourself, as a prosecutor, know that it is not the prosecutor that makes cases, it is the criminal investigator. No one else makes the case for you; no one does the criminal investigatory work for you; it is the investigator.

Before EPA hired criminal investigators, if an incident happened at night, or beyond the nine to five routine, it went undiscovered. Even if it was concealed in a document required by the environmental statutes to be provided to EPA it often went undiscovered. What EPA has done in bringing law enforcement techniques into its fold, is change the way it does its business in a very important way.

The result of an inadequate number of investigators, However, is that, as Senator Bradley and others have testified to today, it puts the agency in a reactive mode by both necessity and by definition. At this point, because of its limited number of investigators, the EPA in only able to react to information off the street. Moreover, there is early burn out because the investigators the EPA does have are overworked.

This also means, by necessity, that management is top heavy. EPA's investigators are set up to manage a professional outfit. They started off with the Generals move to the Colonels and have become the Majors. Although they are set up to managed an orga-

nization, they are lacking the necessary body to manage. There simply are not enough people to both manage these investigators and to be managed by these investigators.

There is, however, I believe, a skeletal system, but one that needs to be improved on for case selection. When you have too few investigators, you can only react to what you have, you can only investigate what you have, and you don't have the proper numbers required to go out and find more cases to do the proactive type of work that everybody is talking about.

In effect, instead of thoroughly investigating each cases or potential case, turning cases has taken first priority. Because of the limited number of investigators, solving cases has generally followed the path of least resistance. Numbers have become goals in and of themselves. This must change. To have an effective nationwide environmental crimes program, a bill such as yours that creates the resources to hire more investigators is imperative.

I also must emphasize, however, the importance of a training program. Training is critical. I think any of those present who have been involved in the Federal Law Enforcement Training Center are aware of the importance of training from the top down. There can be no doubt that as top management gets more involved, training throughout the agency will generally increased. Thus, I would advise that top level managers at the EPA get involved in any training programs that would occur under this bill. On-the-job training is just too difficult. The marriage of these complexities between technical, legal, and scientific measures makes environmental crimes a different animal beast than any other type of case that a prosecutor has to put together for prosecution.

I believe that these training programs, along with a greater number of investigators, will allow the flexibility necessary to create programs which are not—as we prosecutors sometimes forget when we're looking to get that conviction—merely to increase those numbers. I am confident that with the implementation of these two initiatives, the intended goal of environmental compliance can be attained.

With a greater number of investigators, however, so too comes the greater responsibility at the agency to better define the difference between what constitutes a civil case an administration case, and a criminal case. In addition, I think that the agency needs to work together with the regulated community, to figure out a way to increase the incentive for environmental compliance. A voluntary disclosure program to encourage auditing would be just such incentive. Finally, the agency should also better select its cases and send out a more clear message of what constitutes the kind of case that these new investigators would look at.

Nonetheless, I fully support the concept of the Pollution Prosecution Act of 1990. The need for more investigators cannot be overemphasized. However, the merits of including provisions that would expand the scope of the current bill by creating such initiatives as a training program and a program to increase compliance incentives for the regulated community should not be overlooked. I hope my observations have been helpful.

Thank you. I'd be happy to answer any questions that you might have.

Senator LIEBERMAN. Thank you. You answered the questions that I was going to ask you.

Mr. Adler, finally, and thank you.

STATEMENT OF ROBERT ADLER, SENIOR STAFF ATTORNEY, NATURAL RESOURCES DEFENSE COUNCIL

Mr. ADLER. Thank you, Senator, for the invitation. I appreciate the opportunity to be here and to express our strong support for the Pollution Prosecution Act of 1990. I'd like to commend you and your cosponsors for introducing the measure.

While I am currently a Senior Attorney with the Natural Resources Defense Council, in a prior life I was an environmental enforcement attorney for the State of Pennsylvania. So I bring both an enforcement attorney perspective and a public interest perspective to the hearing.

I would like to address two things in my summarized oral testimony, first the need for the bill which seems to be unanimous, so I'll be brief on that; and second, some additional problems that we see with the Federal enforcement effort that ought to be addressed by EPA and by this committee.

As for the need, we have a series of examples in our testimony as to current non-compliance with the Nation's environmental laws. The numbers are quite astonishing. According to one GAO report, at least 41 percent of industries discharging into public sewage treatment plants are violating their pretreatment requirements with respect to toxins.

Another GAO report found widespread non-compliance with respect to inland oil spills. Again, the numbers are astonishing. In four EPA regions investigated, between 41 percent and 94 percent of inspections found violations leading to the 2,000 to 3,000 inland oil spills per year that we've been experiencing.

Private reports by the Natural Resource Defense Council and other groups find similar patterns. We did a report two years ago on the oil industry's compliance level on the North Slope of Alaska and found literally thousands of violations of the Clean Water Act and other environmental laws. And a similar study by the National Wildlife Federation found over 100,000 violations of the Safe Drinking Water Act each year including about 17,000 violations of public health standards involving 13 million people. So clearly more deterrents are needed in those areas.

We have an enforcement project which brings Clean Water Act citizens suits, many of which do bring companies into compliance, but I would agree with the other gentlemen on the panel today, that in some cases intransigent polluters do not seem to respond to civil violations, and in those cases it is essential that we go forward with a criminal approach as well.

Ironically, in light of the testimony that it's individual criminal prosecutions and not corporate criminal prosecutions that seem to be having a deterrent effect, we've been disturbed that, in the case of what we consider the most serious environmental catastrophe in United States history—that being the Exxon Valdez oil spill—so far the Government has chosen to bring corporate but not individual indictments.

So, to summarize that first part of our testimony, we do agree that additional civil and criminal enforcement personnel in the form of inspectors are essential to beefing up the Federal enforcement effort.

We also strongly support the portion of the bill involving training. Again, in my personal experience, having more people doesn't necessarily do a lot of good unless they're properly trained. The National Enforcement Training Institute will go a long way to cure that particular problem.

Again, while we do agree with these measures, we feel that taken alone they will not do enough to beef up Federal enforcement efforts. So let me quickly go through the seven or eight problems that we've identified in our testimony.

First, separate and apart from the resource issue, various reports by the General Accounting Office and by EPA's Inspector General's Office find that existing EPA enforcement efforts are weak in many respects. They find that they lack adequate enforcement management systems to track the cause and effect relationship between the enforcement action taken and the degree of compliance achieved. Enforcement actions weren't taken in a timely fashion and they were not escalated when appropriate. The enforcement remedy must fit the degree of non-compliance.

And finally, they found that civil and administrative penalties were not used effectively in many cases. This shows that just providing EPA increased personnel will not do the trick without the will to enforce and without proper management incentives on the enforcement program. I would identify the bean counting mentality as a major portion of that. We ought to measure enforcement success in terms of the number of facilities that come into compliance, and not in terms of the number of discreet enforcement actions taken. This will give EPA personnel the incentive to choose the right tool for the particular job at hand.

Similarly, the various reviews of enforcement programs find that State enforcement efforts in some parts of the Country are lacking, with due respect to previous State enforcement personnel. For example, IGA reports for region three in the Chesapeake Bay region and region four down in the southeast found very seriously defective State enforcement programs. After all, the reason why we need more EPA enforcement personnel in delegated State programs are inadequacies in existing State programs. So we need better EPA oversight over State programs as well.

Third, we find it ironic that while you are trying to provide the Federal Government with more enforcement personnel, they are wasting enforcement resources by intervening in citizens suits for the sole purpose of making sure that civil penalties won by citizens groups and citizens through prosecutions go into the Federal treasury rather than going to local pollution control efforts. Citizens suit provisions were enacted to save the Federal Government money. Every time the Natural Resource Defense Council successfully prosecutes an action, it saves EPA that enforcement action. We think that the Federal Government ought to be encouraging, and not discouraging, those enforcement actions.

Fourth, a point that was touched on by a number of people this morning, additional compliance monitoring and laboratory capa-

bilities are necessary. Additional enforcement personnel alone are inadequate if they don't have the arsenal necessary to bring successful prosecution. Yet data show that EPA's laboratory capabilities are strained and their monitoring capabilities are strained. So along with the additional enforcement personnel, we would like to see a careful analysis of additional monitoring resources and additional laboratory resources which could be shared with State and local officials as well as the Federal enforcement personnel.

Fifth, there is an ironic lack of efficiency in the current set up of EPA's enforcement personnel. Personnel are cubby-holed within a statute and even smaller cubby holes within a RCRA enforcement program or a Clean Water Act enforcement program. So you've got the inefficiency of having a RCRA inspector going to a facility and missing an obvious Clean Air Act or Clean Water Act violation. In addition, it leads to, in some cases, an incorrect remedy going to a particular pollution problem when you've got cross media problems. The Enforcement Training Institute may go a long way to correct that problem by cross training personnel in various programs so that a RCRA personnel is trained to detect a Clean Water Act violation.

Alternatively, or in addition, we believe it would be appropriate, especially for major facilities, to send teams of EPA inspectors who are trained in different programs to a facility at one time, to meet after the inspection, and to determine which enforcement tools, or mix of enforcement tools, is correct for the particular violations found.

In a related matter, enforcement program personnel need to work together better. In our experience regulations and permits are not always written in a fashion that maximizes enforcement and enforceability. I know that EPA is just beginning to increase the degree to which enforcement personnel comment on regulations when written. We would like to encourage more of that and have it extend to permit writing as well.

Seventh, as you probably know, all EPA judicial enforcement actions must go through the Department of Justice, which leads to duplication of efforts between EPA and Justice in many cases. We do understand that for major enforcement actions, that's probably appropriate, but for minor judicial enforcement actions, we feel that it might be more appropriate to allow EPA to take actions on their own.

The final point is that the Natural Resource Defense Council has supported, in the House of Representatives, the Environmental Crimes Act, which would increase criminal penalties for enhanced felony violations of environmental laws. We would support that type of measure in the Senate as well.

Thank you very much.

Senator LIEBERMAN. Thank you very much.

I regret that I'm running late to another meeting, therefore I cannot go on with the questioning. But the testimony that you've offered has really been outstanding. I personally appreciate the support for this particular bill, but I also more generally appreciate the wealth of experience and just plain creative and fresh thinking that each of you has brought to the table today. I thank you for being here.

The record will remain open for two weeks for any additional comments that any one might have.

If there's no further business, I would adjourn the hearing.

[Whereupon, at 1:12 p.m., the committee was adjourned, to reconvene at the call of the chair.]

[Statements submitted for the record, responses to additional questions, and the bills, S. 2176, and S. 2371 follow:]

Testimony By
Congressman H. James Saxton (NJ-13th)
Before the Senate Committee on Environment and Public Works
Tuesday, April 24, 1990

Mr. Chairman and members of the Committee:

Thank you for permitting me an opportunity to appear before you today, and to speak on behalf of S. 2371, legislation sponsored by my good friend and colleague from New Jersey, Senator Bradley.

It was almost a ago that I began my active pursuit of legislation which would create a national institute on the environment. Senator Bradley's bill moves us not one -- but two -- giant steps forward in that direction.

First, S. 2371 lays the groundwork by directing the National Academy of Sciences to conduct a study that would provide a profile of the current level of research conducted on a multitude of environmental issues, the current level of extramural research and education in those fields, and recommendations regarding the structure, resources and funding of an institute to generate these research activities.

Secondly, similar legislation which I introduced as an amendment with my colleagues from the House Committee on Science and Technology, has already passed the House as part and parcel to the EPA cabinet bill.

I know that much has already been said and written in explanation of a national institute on the environment, and it is not my intent to be redundant. But I do want to explain briefly just why this legislation is so critically important.

It is ironic, and perhaps perfectly fitting, that this subject should come before the committee two days after the nationwide celebration of Earth Day.

The simple message of Earth Day was that when it comes to preservation of our air, land and water, we can do better. And that, too, is the message contained in this legislation.

We're not talking about handing out a few research grants -- we're talking about major policy change. This policy change is so dramatic I dare to call it historic. Yet it is so common sense you wonder why it has taken us so long to grasp it.

The simple principle here is that we should prevent pollution -- rather than react to it. And the key to long-term prevention of pollution, and protection of the environment, can be stated in one word: research.

As it stands now, the overwhelming bulk of our federal dollars earmarked for the environment -- I'll say 90 percent-plus -- are aimed at regulatory functions.

However, it is through research that we develop better access to new technologies and innovative ideas for battling pollution.

Through research, we can develop a master plan for the environment, and develop long-range, logical policies, that discourage pollution.

And, through research, we will be able to deal with problems before they explode into major crises -- and to end what I call the "environmental ambulance squad" approach of reacting after the fact.

Let me try and put it in perspective for you...

I've seen syringes and blood bags washed up on the beaches of my New Jersey district. I've seen the carcasses of dolphins rolling in the surf. I've seen heavy oil coat the waters and wildlife habitat of the Delaware River and Arthur Kill.

There's a certain pattern that follows disasters like these. You know the pattern as well as I do. While the response personnel is cleaning up the mess, the government experts are issuing reports, and those of us in Congress are passing newer, tougher laws -- all after the fact.

Did we really need a massive oil spill in Prince William Sound, Alaska, to discover the laxness in federal laws governing emergency response and clean-up?

How many more hundreds of dolphins have to mysteriously die before we come to grips with the changing ocean environment that is creating this catastrophe?

How are we going to get rid of that toxic, "black mayonnaise" sediment that coats the floors of our harbors and bays?

The point is that every one of these problems requires a commitment to long-term and innovative research for developing solutions. And I haven't even mentioned the grand issues of global warming, ozone depletion, and acid rain.

The thrust of the Bradley bill -- and the legislation approved by the House -- couldn't be more clear. The National Academy of Sciences, under contract to the EPA, is charged with the responsibility of carrying out a feasibility study.

That study will tell us how the national institute on the environment should be structured. It identifies major areas of study, and suggests programs through which competitive grants can be awarded.

I would emphasize that this national institute would not duplicate efforts being carried out by existing agencies. Rather, it would enable us to avoid duplication, by knowing what is taking place in the multi-faceted field of environmental science.

In fact, the proposal for a National Environmental Research Institute is not inconsistent with the Environmental Protection Agency's own recommendations for an ecological research institute. The concept for this institute was published in a Science Advisory Board report entitled "Future Risk: Research Strategies for the 1990s." This was published long before I broached the subject in an address at the OCEANS '89 conference in Seattle, Washington last September.

Since that address, the idea has received a groundswell of support and I have been made aware of many proposals which are reflective of my own. You will have an opportunity to hear about some of the tremendous work which is being conducted by academia on this matter when testimony is given by Dr. Howe.

I have likened this institute to the already existing National Institutes of Health. For over 100 years the NIH has been researching and finding solutions and cures for diseases and medical problems which have confronted our society.

The NIH has been richly funded, largely because all those interests which profit from the development of a cure or procedure, are involved with funding. But, we have absolutely no counterpart in the field of environmental research -- the very environment on which human health depends.

Therefore, Mr. Chairman, it is essential that this institute is designed to generate a high level of participation from state and other non-federal government agencies; from our universities and colleges; from private organizations; and from industry.

I believe the Senator's legislation will provide the vehicle in which those concerns are taken into account. And, more importantly, it provides for the best minds to collectively consider the solutions necessary for addressing the shortfalls currently present in the fields of environmental science and alternatives research.

It is time to find new medicine for the environment by encouraging the innovative research which has so effectively addressed issues of human health.

I thank the chairman.

TESTIMONY OF ROBERT J. DEL TUFO
ATTORNEY GENERAL
STATE OF NEW JERSEY
and
STEVEN J. MADONNA
ENVIRONMENTAL PROSECUTOR
STATE OF NEW JERSEY

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
APRIL 24, 1990

1.

Chairman Burdick and members of the Committee on Environment and Public Works, I am Robert J. Del Tufo, Attorney General of the State of New Jersey. Appearing with me today is Steven J. Madonna, the Environmental Prosecutor for the State of New Jersey. I appreciate the opportunity to address the Committee in support of S.2176, the Pollution Prosecution Act of 1990. I am particularly pleased to be testifying before a Committee which has two former Attorneys General on it. I am sure that both Senator Lieberman and Senator Jeffords, from their previous positions, can appreciate the perspective of a State Attorney General that I hope to bring before the Committee.

I have also been asked by my colleague, Attorney General Hubert H. Humphrey, III, from the State of Minnesota, to include in the record his comments on S.2176, and I am happy to do so.

S.2176 would accomplish three main goals: it would substantially beef up EPA's criminal investigative capability; it would mandate the hiring of civil investigators within EPA's Office of Enforcement and Compliance Monitoring; and it would create a National Enforcement Training Institute. In all three

respects, the bill would represent a much-needed infusion of Federal resources into the environmental enforcement effort. While I will address all three aspects of the bill, my primary focus will be on the need to strengthen the federal role in the arena of criminal investigation and prosecution.

At the outset, allow me to elaborate on why an expansion of federal enforcement efforts is important to us who operate on the State level. I am proud to say that my State of New Jersey has long been in the forefront of environmental law enforcement in this country. For example, for over a decade, our Division of Criminal Justice has been prosecuting all types of environmental criminality, whether it be our traditional focus on the "midnight dumping" of toxic wastes or the more recent problems of coastal pollution, infectious waste disposal, and unlawful solid waste dumping. Governor Florio has gone further and has recently created the office of Environmental Prosecutor with a commission to focus even more attention upon civil and criminal environmental enforcement and, importantly, to reconcile, administer and coordinate the enforcement powers of the many agencies with responsibilities in this area.

But not all states have been able to commit comparable resources to environmental enforcement. Indeed, in many regions of the country, state environmental enforcement generally, and criminal enforcement in particular, are still in their infancy. In such geographic areas, a vigorous federal presence is a necessity, to help ensure more even-handed environmental enforcement throughout the nation. It is in the collective

interest of the states that disparity in enforcement capability across state lines be eliminated. This cannot be accomplished without the equalizing effect of a targeted federal effort, to fill the void where mature state programs are in the process of being developed. The ultimate goal is a functioning State-federal enforcement partnership, where the State and federal programs complement and enhance each other.

Sadly, the commitment of federal resources has up to now not been equal to the task. S.2176 would reverse that track record and would begin to put the federal government back into a leadership role in environmental enforcement.

2.

Before addressing the merits of S.2176 in greater detail, I will direct some comments to the historical development of the federal environmental enforcement program.

Enforcement proceedings against corporations and individuals - particularly criminal prosecutions - were virtually unheard of under federal environmental statutes until very recent years. For that matter, enforcement of environmental law proceeded rather slowly in general. The situation is attributable largely to historical circumstance.

Prior to 1976, EPA and DOJ were concerned primarily with defending Clean Air Act and Clean Water Act regulations and EPA's failure to meet statutorily-decreed deadlines under both Acts. Indeed, there were no federal statutes then in place which adequately addressed problems incident to the handling and

disposal of toxic and hazardous substances. The Toxic Substances Control Act and the Resource Conservation and Recovery Act were not enacted until 1976, and the Safe Drinking Water Act followed in 1977. Superfund did not come along until 1980. And the laborious process of drafting regulations for RCRA and TSCA, an event essential to enforcement initiatives, took years to accomplish.

However, in 1977, with the concerns of Congress brought to the forefront in the reauthorizaton of the Clean Air Act and Clean Water Act and the shifts brought about by a new administration, civil enforcement of environmental laws began to gain a more solid foothold at EPA and DOJ. Civil penalties, in the form of fines levied for regulatory noncompliance or for violation of injunctive directives, were the focus of the early enforcement efforts. Civil proceedings (which EPA largely controlled) were more attractive than criminal initiatives because they required no proof of scienter and could largely be won on the basis of data indicating noncompliance in the self-monitoring reports filed with the EPA by industry. And from a policy standpoint, compliance and clean-up were the immediate pressing goals of the federal government, not operational deterrence.

Criminal enforcement efforts were few in number at this time. The capacity for pursuit of such remedies was in its incipient stages at the DOJ; and the investigative resources necessary to detect and prosecute criminal violations were lacking. Criminal remedies were either confined to the most egregious violations or were the result of proactive efforts by a

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handful of United States Attorneys utilizing the Rivers and Harbors Act of 1899 and the more usual panoply of federal criminal statutes such as mail fraud and conspiracy.[1]

During the late 1970s, efforts intensified to create an environmental enforcement unit in the DOJ and to launch a coordinated EPA/DOJ enforcement drive. In 1980, the Environmental Enforcement Section was created within the Lands and Natural Resources Division of the Justice Department. In 1981, EPA established the Office of Criminal Enforcement, and in 1982 hired its first criminal investigators. These investigators were trained agents from local, state and federal law enforcement agencies. The DOJ Environmental Enforcement Section set up a new Environmental Crimes Unit in 1982 to receive referrals from EPA and supervise the prosecution of environmental criminal actions. Moreover, the enactment of Superfund and the promulgation of RCRA regulations to address the serious and growing pollution problems created by the improper management of hazardous waste added impetus to the developing civil and criminal enforcement program. The emphasis shifted to pursuit of violators not only to correct

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1. As already alluded to, New Jersey was in the forefront of the criminal enforcement effort. The nation's first Federal-State Toxic Waste Task Force was created in the late 1970's in New Jersey and was staffed with investigators and attorneys. The United States Attorney's office in New Jersey invoked RCRA, for the first time nationally, in a suit against a New Jersey chemical landfill leaching into a waterway (Kin-Buc) and was the first to utilize the mail fraud statute in criminal prosecutions. (Chemical Control; Carraccino, Mahler and SCP).

situations and mete out punishment, but also to deter others from wrongdoing and in this fashion to foster compliance.

Despite its promising beginning, the federal enforcement effort has not lived up to its promise. The staffing levels remain woefully inadequate to carry on an effective nationwide environmental enforcement program. For example, EPA currently has only 55 criminal investigators to cover the entire country. (By contrast, the State of New Jersey alone has 37 criminal investigators devoted exclusively to environmental investigations.) The United States Department of Justice currently has only 23 attorneys assigned to what is now called its Environmental Crimes Section. (Again, by comparison, New Jersey itself devotes 10 Deputy Attorneys General to the exclusive task of developing environmental criminal cases).

There is, in short, a compelling need to beef up the federal manpower commitment and to better integrate criminal enforcement into EPA's overall enforcement strategy. I am pleased that the new Administration appears to be moving in a more constructive direction, but greater efforts need to be made.

3.

The specter of criminal prosecution is the most potent compliance tool in the arsenal of government enforcement weaponry. Administrative and civil sanctions, while appropriate for their purpose, serve only to punish the corporate entity and not the decision-makers responsible for the acts done in the corporate name. Nor can administrative and civil remedies properly redress

those flagrant environmental insults brought about by wrongdoers who view environmental fines simply as a cost of doing business. And what about environmental scofflaws who simply thumb their noses at the authority of regulatory agencies? In all these situations, a viable criminal enforcement option is a necessity, not only to punish the miscreant, but, even more importantly, to foster compliance with regulatory mandates through the deterrent effect of the criminal law.

For too long now, the United States government has largely left criminal environmental enforcement in the hands of the states. Regional environmental enforcement networks (such as the Northeast Hazardous Waste Project, a 14-state coordinating body headquartered in New Jersey) have sprung up to fill the void left by the absence of a substantial federal presence.[2] Since the 1980 formation of the Northeast Hazardous Waste Project and the more recent creation of the other three Regional associations, the mechanisms for coordination among State programs have been established and refined. Clearly, these Regional networks have proven their long-term value and must be retained. (To its credit, EPA and particularly EPA's National Enforcement Investigations Center have fostered the development of the regional networks by providing much of the funding for the regional projects). But the concept of federalism cannot be used

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2 The 4 Regional networks are: the Northeast Hazardous Waste Project; the Western States Hazardous Waste Project; the Midwest Environmental Enforcement Association; and the Southern Environmental Enforcement Network.

as a means of abdicating enforcement leadership by the United States government. It is long past the time for the federal government to resume its rightful position in the forefront of enlightened environmental enforcement, restoring greater balance to the State-federal partnership.

The bill now before this Committee, S.2176, would infuse new life into the federal environmental enforcement program, particularly on the criminal side. It would require that in each of the next five years, the number of criminal investigators assigned to EPA's Office of Criminal Investigations shall increase by 30% over the number assigned during the prior year. At the end of the 5 year period, this would result in a total of over 200 criminal investigators - hardly an excessive number to cover a nationwide enforcement effort, and surely a vast improvement over the 55 investigators who must now try to cope with a 50-state geographic area.

Parenthetically, I would note that as the number of criminal investigators increases, the number of criminal cases will predictably increase to a comparable level. Thus, the Committee may wish to consider a requirement that DOJ hire an additional number of prosecutors in its Environmental Crimes Section to handle the increased caseload generated by the new complement of investigators.

Unfortunately, as with the criminal enforcement achievements, the federal enforcement efforts on the civil side have also been insufficient to meet the need. The enormity of the task facing EPA - i.e. on the clean-up front along, some 30,000

sites are being evaluated for addition to the 1081 sites now on the Superfund national priorities list - insists upon a program of aggressive administrative and civil enforcement litigation. Yet, EPA's own Inspector General recently faulted the agency for failing to act on known violations, sometimes allowing pollution to continue for years. A study done by the Inspector General found that among other problems, consent agreements that had previously been negotiated by EPA with environmental violators were not being enforced. Of those consent agreements examined by the Inspector General between 1983 and 1987, in 83% of the cases there was no evidence of compliance. Yet, because of inadequate follow-up enforcement effort by EPA, violators were able to delay or avoid compliance, and to do so without penalty. In short, companies have been taking EPA for a ride, negotiating consent agreements as a way to keep EPA off their backs, and apparently counting on the absence of agency follow-up.

While some of EPA's problems in this regard may be attributable to data management deficiencies, the conclusion seems inescapable that there is simply not enough manpower devoted to the enforcement effort. S.2176 would take a small but immediate step to address the problem, by mandating the hiring of 50 civil investigators to assist in developing and prosecuting civil and administrative actions. While recognizing that this is not enough for the magnitude of EPA's task, I acknowledge that it is a welcome move in the right direction.

The third aspect of S.2176 is the creation of a National Enforcement Training Institute within EPA's Office of Enforcement

and Compliance Monitoring. Its purpose would be to provide environmental enforcement training to federal, state and local personnel, including lawyers, inspectors, and civil and criminal investigators.

There is no question as to the on-going need for training for environmental enforcement personnel. Environmental enforcement work is a highly technical, specialized area. Whether for agency inspectors, government attorneys, or law enforcement officers, it is unlike any other type of governmental enforcement undertaking. It involves specialized evidence-gathering techniques, unique crime scene settings, and a complex underlying web of statutes and regulations. To be an effective environmental inspector or investigator, an individual must know something about a wide variety of scientific disciplines (chemistry, toxicology, biology, geology, hydrology) and must be able to appreciate the nature of the industrial processes that generate waste and ultimately cause pollution. Environmental enforcement personnel must be trained in the use and necessity for personal protection and safety, including the use of protective clothing, respirators, and self-contained breathing apparatus. They must learn the operation of some sophisticated equipment, such as air monitoring instrumentation and pollution recording devices. They must be trained in proper sampling methodologies and other legally-mandated evidence-gathering and evidence-preservation techniques. And they must have a thorough understanding of the statutes, regulations, and policies governing each of the subject areas in which they work. In short, government environmental

personnel can only be effective enforcers if they are equipped with the knowledge and skills to enable them to recognize, appreciate and gather significant evidentiary facts, as well as being equipped with such basic skills as interviewing, testifying, and surveillance techniques.

Investigators and attorneys from my office were instrumental during the 1980s in developing several innovative environmental training programs, including a Basic Hazardous Waste Investigative Training Course, an Environmental Regulatory Inspectors Training Course, and an Advanced Hazardous Waste Investigative Training Course. The latter course in particular is worth noting in greater detail. It is a 3-day advanced investigative course that utilizes trained actors and simulates a real-life environmental crime scene, follow-up investigation, and execution of an environmental search warrant. This course was developed under the auspices of the Northeast Hazardous Waste Project and was later replicated for use at the Federal Law Enforcement Training Center in Glynco, Georgia. This and the other pioneering environmental training programs noted above are still being utilized on a regular basis by the member states of the Northeast Hazardous Waste Project.

The National Association of Attorneys General (NAAG) has worked with EPA and with the Northeast Hazardous Waste Project to make these and similar training programs available to the other three regional state environmental enforcement organizations and to individual states. NAAG also has supplemented this training

with substantive courses for State attorneys addressing enforcement issues under RCRA and CERCLA.

Again, however, there is simply not enough of this type of environmental training being conducted nationwide to satisfy the need. The four regional environmental networks conduct training for their member states, and as already noted, these courses are innovative and well-regarded. Additionally, EPA's National Enforcement Investigations Center (NEIC) supports and sponsors a 2-week Hazardous Waste Investigations Training Program at the Federal Law Enforcement Training Center (FLETCE) in Georgia, as well as certain in-service training programs for EPA personnel.[3] Yet, as good as these programs are, they reach only a fraction of the enforcement personnel at all levels of government throughout the country who are in need of both basic and advanced environmental training. The training of all individuals that could assist in the environmental enforcement effort is indeed a monumental task, not only because of turnover in staff and changes in the state of the art but also because of the numbers of personnel needing training - for example, all local fire and

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3 The NEIC-sponsored course at FLETCE was developed and implemented with assistance from law enforcement personnel from New Jersey and from other states. As already noted, it incorporates portions of the investigative curricula developed by the member states of the Northeast Hazardous Waste Project.

police department personnel could and should be trained in awareness and in some rudimentary investigative techniques.[4]

The establishment of a National Enforcement Training Institute, as envisioned by S.2176, would provide a centralized clearinghouse for environmental training. It would bring greater focus to the on-going need to develop new and better training programs that are responsive to evolving enforcement needs. And, most importantly, it would help fill the information and training gap that exists in many areas of the country, particularly among state and local investigators and attorneys.

4.

In closing, let me add that in order to ensure an effective and vital organization, the Training Institute should be structured with an advisory Board that includes State attorneys general, local district attorneys, representatives from the four regional environmental projects, the National Association of Attorneys General, and other state and local environmental organizations from all regions of the country. In this way, the National Training Institute can constantly invigorate itself with

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4 The Midwest Environmental Enforcement Association has prepared a training video for such personnel. The proposed National Training Institute could, of course, utilize this and other existing materials.

new ideas, as well as being responsive to the evolving training needs of front-line enforcement staff.[5]

Before concluding my testimony, Mr. Chairman, allow me to note how pleased I am to testify before a Committee of which three members (my own Senator Lautenberg and Senators Mitchell and Baucus) have co-sponsored S.1140, another very important bill regarding State environmental interests, which would clarify the waiver of federal sovereign immunity under RCRA, the federal hazardous waste statute.

Mr. Chairman, it has been my pleasure to appear before you and this Committee in support of S.2176. While I certainly support the needs addressed in this legislation, I do question whether the initial appropriation of $10 million is adequate to carry out its purposes. Nonetheless, I hope that this Committee will give the legislation favorable consideration and work to provide whatever additional and future financial resources may be necessary to achieve its laudable goals.

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5 As the Committee well knows, many states are presently experiencing severe budgetary problems. Among the casualties have typically been funds for out-of-state travel for State employees. Thus, if the Training Institute proposed by S.2176 is to reach the State and local personnel that are in need of training services, the Institute must itself subsidize the travel expenses of those who could otherwise not benefit from the Institute's training programs.

STATE OF NEW JERSEY
EXECUTIVE DEPARTMENT

EXECUTIVE ORDER NO. 2

WHEREAS, the State of New Jersey faces significant threats to its water, air and earth from pollution; and

WHEREAS, conquering those threats and ensuring a high quality of life for all New Jerseyans would be furthered by the creation of a system of coordinated, coherent and effective criminal, civil and administrative enforcement, including swift and sure criminal and/or civil and/or administrative enforcement in matters involving either a chronic environmental offender or a situation which poses a serious threat to public health or to the environment (hereinafter "priority cases"); and

WHEREAS, a coordinated enforcement policy and effective criminal and/or civil and/or administrative prosecution of priority cases would best be achieved by creation of the position of Environmental Prosecutor with centralized responsibility to achieve a coordinated enforcement policy and to oversee the prosecution of enforcement actions in priority cases;

NOW, THEREFORE, I, JAMES J. FLORIO, Governor of the State of New Jersey, by virtue of the authority vested in me by the Constitution and Statutes of the State of New Jersey, do hereby ORDER and DIRECT:

1. The position of Environmental Prosecutor is hereby created in the Department of Law and Public Safety with the rank of Assistant Attorney General. The Environmental Prosecutor shall be appointed by and serve at the pleasure of the Governor, and shall serve under the supervision and direction of the Attorney General.

2. The Environmental Prosecutor shall have access to the support and resources of the Department of Law and Public Safety including, without limitation, such clerical and support staff as may be necessary to discharge his or her responsibilities, access to the Environmental Prosecution Unit within the Division of Criminal Justice and access to the Environmental Section of the Division of Law.

3. The Environmental Prosecutor shall establish a coordinated enforcement policy and shall oversee the prosecution of enforcement actions in priority cases.

In furtherance of these responsibilities, the Environmental Prosecutor shall, under the supervision of the Attorney General as aforesaid, have the following powers and obligations:

(A) The Environmental Prosecutor shall have access to all information concerning environmental enforcement which is in the possession of all State agencies. Such information will include agency inspection reports and license information, individual case files, and intelligence information such as that compiled and maintained by the Divisions of State Police and Criminal Justice.

(B) The Environmental Prosecutor shall meet on a regular basis with representatives of all State departments and agencies with environmental enforcement responsibilities: (i) to identify individual matters as priority cases; (ii) to set specific goals and strategies for the most effective resolution of each such case, whether by criminal or civil or administrative enforcement action or some combination thereof; and (iii) to formulate and evaluate proposals for legislative, administrative and/or judicial initiatives to strengthen environmental enforcement and to further a coordinated enforcement policy.

(C) The Environmental Prosecutor shall oversee the processing, progress and prosecution of individual priority cases. He or she shall work with the Directors of the Divisions of Law and Criminal Justice when such matters are receiving, or should receive, the attention of the Attorney General. He or she shall also work through the heads of other departments and agencies to oversee administrative enforcement activities in priority cases which do not involve direct Attorney General attention.

(D) In connection with environmental enforcement activities, the Environmental Prosecutor shall act as the liaison for the Executive Branch of government with agencies involved in environmental enforcement outside the Executive Branch including federal agencies and the judiciary. In this connection, an initiative currently being developed for the judiciary would, if adopted, create a chronic environmental offender program. Among other things, the program would involve the assignment of a judge to review pending cases in an effort to insure that egregious matters are moved and disposed of

STATE OF NEW JERSEY
EXECUTIVE DEPARTMENT

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with dispatch. The Environmental Prosecutor would coordinate and link his or her activities with the overseer of any such judicial initiative.

4. All departments and agencies of State government with environmental enforcement responsibilities are hereby directed to cooperate with and to support fully the Environmental Prosecutor in the discharge of his or her responsibilities and obligations.

5. The Environmental Prosecutor shall report to the Governor and to the Attorney General after six (6) months of service, and at reasonable and appropriate intervals thereafter, as to the progress of his or her work and as to whether any further administrative and/or legislative action would be desirable to assist in the discharge of his or her duties.

6. This Order shall take effect immediately.

GIVEN, under my hand and seal this 22nd day of January in the Year of Our Lord, One thousand nine hundred and ninety, and of the Independence of the United States, the two hundred and fourteenth.

/s/ James J. Florio

GOVERNOR

[seal]

Attest:

/s/ John A. Sweeney
Counsel to the Governor

STATE OF NEW JERSEY
DEPARTMENT OF LAW AND PUBLIC SAFETY

ROBERT J. DEL TUFO
ATTORNEY GENERAL

June 14, 1990

Honorable Joseph I. Lieberman
United States Senator
Senate Office Building
Washington, DC 20510

Re: S. 2176

Dear Senator Lieberman:

Thank you for your recent letter and for the additional inquiries. I enclose a response to those questions.

Again, it was a pleasure to appear before your Committee. Thank you for all your courtesies.

Sincerely,

Robert J. Del Tufo
Attorney General

enc.
RJD:vs

RESPONSES TO SENATOR LIEBERMAN'S QUESTIONS

QUESTION 1.: Type of Cases -- Where are we moving now in the criminal enforcement of environmental laws -- what type of cases do you recommend should be pursued on the federal level by EPA? For example, do you agree with EPA's new emphasis on targeting repeat civil offenders, multimedia and geographic approaches? Will the increase in investigators and establishment of a training institute, as provided in this legislation, help to fulfill these goals?

ANSWER: Types of Cases

The question of where we are moving in the criminal enforcement of environmental laws varies greatly, depending on geographic region. In the Northeast, for example, where state criminal enforcement programs are better established and have already achieved a notable deterrent impact, polluter's methods have become more sophisticated and less overt. Thus, such things as clandestine sewer dumping have replaced the more traditional "midnight drum-dumps" as the illegal disposal methods of choice, largely in response to the deterrent effect of government enforcement programs. Other more sophisticated means of disposal include fuel oil blending; construction debris (sometimes ground) laden with asbestos, toxic pollutants or hazardous waste; and the abandonment of stolen trailers of waste. In such geographic areas, the State law enforcement programs themselves must become more sophisticated in order to keep up with the ever-evolving strategies that polluters devise to frustrate detection.

Conversely, in geographic areas where mature environmental criminal enforcement programs do not exist, the illegalities will likely be more overt, undeterred by the fear of criminal prosecution. In these areas, the mission of environmental law enforcement is to establish a credible and visible presence, through prosecution of the more blatant illegalities.

As to the type of cases to be pursued on the federal level by EPA, this too depends to some extent on geography. The federal criminal enforcement program should concentrate the lions share of its resources in regions that lack vigorous state law enforcement programs. In States with more mature programs, the federal role should be one of investigating and prosecuting those few violations that, on a case by case basis, cannot be effectively prosecuted in the State system and of handling those cases where federal crimes (e.g., mail fraud) may be more suited to the type of violation involved.

Regarding EPA's purported emphasis on targeting repeat civil offenders, it is an approach that we in New Jersey have long employed. The ultimate goal of all environmental enforcement

(whether civil or criminal) is to foster compliance with the environmental laws. Because the environmental regulatory agencies are entrusted with the day to day broad-based responsibility to ensure compliance, it is essential that criminal enforcement programs be structured so as to buttress, support and enhance the credibility of the regulatory enforcement effort. So, for example, should a particular company show its disdain for regulatory mandates by repeatedly flouting agency directives, and where regulatory authority is thus ineffective in achieving compliance, the criminal enforcement program should step in. While criminal prosecution is indeed an extreme sanction, it can and should be used to augment the regulatory enforcement effort. This, of course, highlights the need for constructive and cooperative working relationships between environmental regulatory agencies and criminal prosecutorial agencies. In this regard, I indicated in my testimony that we in New Jersey are fortunate to have had our Governor create and appoint for the first time a State Environmental Prosecutor charged with the full time responsibility to coordinate the civil, criminal and administrative aspects of the environmental enforcement effort into a more effective and efficient program.

Regarding the question of whether the measures in S.2176 will help to fulfill the underlying goals of the Legislation, it goes without saying that merely creating new investigators will not solve the problem. Yet, the increase in investigators is a necessary first step. As I pointed out in my testimony before the Environment and Public Works Committee, the existing number of federal environmental criminal investigators is terribly inadequate when compared to the magnitude of the task. Even with the type of targeted federal effort I have described above, many more investigators are needed than presently exist.

The establishment of the Training Institute will bring about three primary benefits, all in furtherance of the goals of S.2176:1) it will help ensure that the newly-hired federal investigators are properly equipped to do their jobs; 2) it will provide needed training to State and local environmental officials, who can then carry on the enforcement effort, freeing federal enforcement personnel to target their energies elsewhere; and 3) it will help bring about consistency and excellence in the environmental enforcement methods used nationwide.

QUESTION 2.: Participation of Local and State Officials -- What type of participation by local and state officials -- both in setting policy and receiving training -- would you like to see in the training institute? Do you believe that the Training Institute actually can consolidate resources and save duplication of efforts among various levels of government?

ANSWER: Participation of Local and State Officials

As I noted in my testimony, the proposed Training Institute should be structured with an advisory board that will facilitate a policy input from State and local officials and will help ensure an even-handed allocation of training slots. This advisory board would include State Attorneys General, local District Attorneys, representatives from the four regional environmental projects, the National Association of Attorneys General, and other State and local environmental enforcement organizations from all regions of the country.

In addition to this participation on an advisory board, State and local officials can, as they have in the case of the Hazardous Waste Training Program at the Federal Law Enforcement Training Center in Glynco, Georgia, play a key role in the writing of the course curriculum and in providing a pool of qualified lecturers and course supervisors. You raised the question of whether the Training Institute can consolidate resources and prevent duplication of efforts among the various levels of government. If properly structured, it can do so. There is presently some excellent environmental enforcement training being furnished by the four regional environmental projects, by the Federal Law Enforcement Training Center, by the National Association of Attorneys General and by the United States Environmental Protection Agency. Yet, there is simply not enough of this training to fulfill the demand. The Training Institute, if properly implemented, can build upon the existing training programs, making similar programs available in the areas where the demand exists and devising new and innovative training programs to suit the needs of evolving and maturing governmental and environmental enforcement efforts.

QUESTION 3.: Reaction of Judges -- How have judges been responding to the new emphasis on criminal enforcement? Will the new sentencing guidelines now under consideration help your job as prosecutors of environmental crimes?

ANSWER: Reaction of Judges

There has been a general perception that judges are not always up to the complexities of environmental litigation. In New Jersey, for example, a recent report by the Supreme Court Committee on environmental litigation, while stopping short of recommending a special "environmental court," did call for enhanced training for judges in environmental matters.

The pressures on judges on criminal environmental prosecutions are complicated by another stark reality: jail and prison overcrowding. Many local jails and prisons are bulging at the seams; some are under court order to take measures to ease

overcrowding. Against this backdrop, judges are under great pressure to be more selective in imposing sentences of incarceration. Thus, when "non-violent" criminals like polluters (who are otherwise up-standing citizens) step before a judge for sentencing on the same day that murderers, rapists, robbers, and drug pushers are sentenced, it is simply the present-day reality of life that the polluter is the one most likely to escape incarceration. While heavy fines and the stigma of criminal conviction may still be imposed, the heavy deterrence achieved by a term of imprisonment is often avoided.

There are some steps that can be taken to deal with this problem, short of constructing more prisons and jails. Many environmental crimes, because of the insidiousness of the damage they inflict, should be seen for what they are: violent crimes that threaten the lives and welfare of the citizenry. Care should be taken in the pursuit of enforcement actions to emphasize relevant graphic evidence of damage to our natural resources. Evidence such as this dramatically illustrates the insidious nature of these offenses. In the same token, matters that are, at best, marginally criminal, should be referred for alternate forms of civil or administrative dispositions. Marginal cases tend to denigrate the true seriousness of environmental offenses in the eyes of the judiciary. Being focused on the true nature of these crimes the bench will more uniformly impose sentences in which the severity is commensurate with the magnitude of the offense. Likewise, the legislatures can begin to assert their policy-making prerogative by imposing requirements on sentencing judges in environmental cases, such as mandatory terms of incarceration or presumptions of incarceration for certain offenses, and periods of parole ineligibility.

I will not comment here on federal sentencing guidelines. I would note, however, my belief that any sentencing scheme that attempts to articulate aggravating and mitigating factors to guide a sentencing judge should do so in such a way as to include criteria that are appropriate for environmental crimes.

QUESTION 4.: Type of Personnel -- Mr. Mielke in his written testimony expressed concern that in some jurisdictions, criminal enforcement was being handed over to health departments which are not traditionally trained in law enforcement. He emphasized the need to attract police officers, detectives and other law enforcement personnel to work on environmental crimes. How can government agencies attract these personnel to work on environmental crimes?

ANSWER 4.: Type of Personnel

I concur in Mr. Mielke's assessment that agencies such as Health Departments ought not to shoulder the responsibilities

related to criminal environmental enforcement. Such functions more properly rest with traditional law enforcement agencies. On the other hand, such agencies are a valuable source of the much needed technical expertise and should be made available to work in concert with, and under the supervision of the criminal enforcement agency.

As to how to attract qualified law enforcement personnel to work on investigating and prosecuting environmental crimes, much has to do with setting the proper tone at the highest levels of government. In New Jersey, for example, our Governor, Jim Florio, has long been associated with the theme of vigorous environmental enforcement. It is consequently much easier to attract seasoned police and prosecutors to work in an area which the Governor himself has declared to be a priority of government.

Equally important is the need for basic environmental crimes awareness training in the local police academies and follow-up "in-service" training to veteran police officers. Once a police officer understands the nature of environmental crimes and the very real role that he can play in their investigation and prosecution, he will be more inclined to volunteer for involvement. Nothing inhibits such involvement more than a basic fear or distrust of the unknown.

An additional way to attract experienced law enforcement personnel to the area of environmental enforcement is to emphasize the networking that has developed throughout the country among the environmental enforcement officials. Law enforcement personnel tend to respond favorably when they recognize the resources that exist among fellow law enforcement personnel in other states. The four regional environmental enforcement projects, in particular, provide data banks, training resources, and the camaraderie of like-minded enforcement personnel from other states as an evolving fraternity of environmental enforcers. The availability of such resources, coupled with the satisfaction of working on high-profile issues of great public visibility and concern, will provide strong incentives to attract qualified personnel to environmental enforcement. This has certainly been our experience in New Jersey.

QUESTION 5.: Audits -- I have increasingly heard about the effectiveness of self-audits by corporations in obtaining compliance with our environmental laws. Would you recommend that the Congress consider the possibility of mandating audits by corporations?

ANSWER: Audits

Industries and public agencies operating facilities which might cause environmental problems should be encouraged to conduct voluntary environmental audits. Thorough audits, going beyond required compliance monitoring under existing regulatory provisions, can have results which are beneficial to both the facility operator and the public. Such results include preventing harm to the public and degradation of the environment which might not otherwise be prevented under existing regulatory systems; avoiding substantial civil liability to third parties from unanticipated environmental problems; avoiding violations of existing regulatory provisions and the civil and criminal sanctions that attach to such violations; and, providing a useful tool for long-range planning resulting in savings in costs which would otherwise be incurred in the treatment and disposal of waste materials or the control of emissions.

Such environmental audits may not be equally useful in all situations, obviously being more appropriate for complex operations. Also, some facility operators may be reluctant to engage in audits because of concerns that audit reports will provide information which can be used against them by enforcement agencies. Another concern may be possible revelation of proprietary information in audit reports. Conversely, enforcement agencies may have legitimate concerns that any protections surrounding the use of audit reports intended as incentives to encourage auditing, may be misused by operators as a way of shielding compliance facts to which the agencies would otherwise have access. Any policy concerning environmental audits should address these issues with a careful balancing which will create sufficient incentives for auditing without impairing enforcement efforts.

While I would, therefore, encourage the widespread use of environmental audits under the conditions described above, I would not recommend that Congress mandate environmental audits by all members of the regulated community without giving careful consideration to several issues. First, the cost effectiveness of such a requirement should be considered. If audits were to be mandatory then enforcement agency resources would have to be dedicated to ensuring compliance with the requirement. This would require a major effort on the part of such agencies to review countless audits to ensure, as a matter of fairness, that all members of the regulated community are complying. Yet, many of those reporting may be "good actors" where compliance is not a problem and where, absent an audit requirement, no expenditure of enforcement resources would be required. Secondly, if such audits become mandatory, this at least implies that all such reports will have to be disclosed to the government. This may well result in a loss of the very objectivity and candor which makes auditing a useful tool.

Rather than mandating environmental audits across the board, therefore, I would suggest the selection of narrow categories where auditing might be particularly productive. For example, consideration might be given to requiring audits of certain complex industrial operations, over a designated size threshold, where there has been a significant history of prior violations. In such cases audits should be conducted by independent auditors certified by enforcement agencies according to appropriate criteria. Apart from possible mandatory audits in such narrow categories, any legislation on the subject should focus solely on creating incentives for voluntary self audits.

TESTIMONY OF DR. HENRY F. HOWE*
DEPARTMENT OF BIOLOGICAL SCIENCES
UNIVERSITY OF ILLINOIS-CHICAGO

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ON

SENATOR BRADLEY'S BILL S. 2371 FEASIBILITY
STUDY OF THE NATIONAL INSTITUTES FOR THE ENVIRONMENT

24 April 1990

* Dr. Howe (Ph.D., U. Michigan, 1977) is Professor of Biological Sciences and Coordinator of Ecology and Evolution at the University of Illinois at Chicago. Dr. Howe is Co-Chair of the Committee for the National Institutes for the Environment, a group of university scientists, industry leaders, policy planners, and representatives of environmental groups, concerned with the need for an effective U.S. effort in the environmental sciences.

Summary. The Committee for the National Institutes for the Environment (NIE) calls for the creation of a series of institutes, modeled after the National Institutes of Health (NIH), which would support competitive, mission-oriented multidisciplinary and investigator initiated studies of a broad range of environmental problems, with particular emphasis on the biological and economic consequences of environmental change. I review: (1) the concept of NIE, (2) the educational rationale of NIE, (3) configuration of NIE in government, (4) NIE as a check on government control of information, and (5) the need for an independent study.

TESTIMONY

Mr. Chairman, members of the committee, I appreciate the opportunity to speak in support of a comprehensive study of the environmental sciences (S. 2371). My background is that of an ecologist with special interest in tropical ecology and experimental prairie restoration. With Dr. Stephen Hubbell (Princeton), I am Co-Chair of the Committee for the National Institutes for the Environment ("the Committee").

The population of the world has grown by 1.5 billion since the first Earth Day 20 years ago. The addition of one new person for every two on the planet has coincided with a surge of environmental dilemmas - some old but unresolved, some unforeseen in 1970. In this rapidly changing world, many or even most of the major economic and geopolitical issues of the next century will be caused or shaped regional and global environmental change. The United

NOTE: The appendices attached to this statement have been retained in committee fi

States must understand these changes and their consequences to have any chance of enjoying a prosperous and environmentally secure future. However, the patchwork of government support for environmental research and education is critically inadequate for meeting present challenges, much less those that lie ahead. Weak science cannot inform sound policy, and weak education cannot prepare our citizens for the magnitude of environmental changes predicted by many scientists.

Elevation of the EPA to cabinet status (S. 2006) will raise the stature of our environmental efforts at home and abroad. By itself, however, enhancement of stature will not meet the new environmental challenges, nor correct the inadequacies that have appeared during the last 20 years.

As a scientist, I am concerned that most (95%) research sponsored by the EPA has been conducted in-house, mostly towards narrow regulatory goals rather than understanding the processes that underlie natural phenomena. Environmental sciences have suffered. With the awesome scale of environmental challenges looming, our society lacks the basic understanding of biological and economic processes that would permit environmental security. The United States wedded superior technology with a solid foundation in physics to send men to the Moon. Environmental change is imposing even greater challenges on society, requiring understanding of processes and precision of applications in scientific disciplines that have not yet had an Isaac Newton.

What went wrong? The issue boils down to the amount and distribution of government support. In the face of accelerating change, Government research priorities ignored environmental sciences, and still ignore a wide range of biological and economic consequences of change. A much-needed increase in funding for atmospheric and geophysical sciences still leaves out living things, including people. Only 9% of the recently passed budget for global climate change concerns "human issues," hardly adequate for determining the consequences of wholesale shifts in cities, borders, water rights, agriculture, industry, and fuel consumption predicted by many scientists. In addition, in-house research has starved our university system. Far from encouraging the emergence of environmental Isaac Newtons - or even competent scientists and environmental managers - current policy has virtually eliminated some needed disciplines from research universities.

Neither the Government nor the economic base that makes our system work can afford the folly of far-reaching regulatory policy - or lack of regulatory policy - premised on weak or non-existent science. Panaceas do not work in medicine, and they will not work in ensuring the health and physical security of the planet. NIE would make an enormous contribution towards an environmentally secure future, enjoyed by a scientifically literate citizenry.

(1) The Concept of the NIE

The NIE is conceived as an umbrella organization, like the NIH, for mission-oriented extramural funding agencies that will support multidisciplinary task forces and investigator-initiated research. Proposed institutes address permanent environmental challenges with programs of competitive, merit-based research in universities and qualifying non-academic research organizations. Unlike the NIH, the NIE is not expected to include a large intramural funding component. This role is already being played by the EPA and other federal agencies.

Descriptions of likely charges to each institute (Biotic Resources, Ecosystem Management, Sustainable Resource Use, Changing Human Environments, and Climate Change) are available in short form in our proposal (National Institutes for the Environment: A Proposal) and in more detail in the appendix to this testimony (Appendix A: National Institutes for the Environment - A Needs Statement). Each institute will integrate funding programs in biological, policy, and economic sciences to understand, predict, monitor, prevent, and/or mitigate the consequences of environmental change. The focus of these institutes will be support for study of the biological and economic consequences of environmental change, and for the policy and engineering solutions that may predict, mitigate, or even make use of change.

(2) Educational Rationale for the NIE

Patterns of extramural government funding in the sciences determine university priorities, faculty representation, and ultimately educational programs. Well-funded disciplines offer overhead income to research universities, and appear to university administrators to be "hot" fields worthy of support. In addition, faculty in well-funded areas do more and better research than those in impoverished fields, train more graduate students, and teach more undergraduates. Faculty composition reflects monetary realities determined in Washington, and graduate programs and curricula reflect faculty composition.

A stunning example of the role of government in determining scientific priorities is the growth of basic biomedical sciences - physiology, genetics, cell biology, molecular biology - since the creation of the NIH in the 1940's. Then most university departments were dominated by "organismal biology," such as anatomy, systematics, and whole-organism physiology; ecology was being born. Since then, NIH-funded biological sciences important for understanding, preventing, and curing disease have burgeoned, leading to creation of tens of thousands of faculty positions in biology departments and spawning enormous growth in medical schools and associated institutes. Spectacular discoveries in genetics and molecular biology in universities throughout our country attest to the success of the NIH programs in promoting first class science

on a broad scale; education of millions of students in courses in biomedical sciences each year attests to the influence of NIH in creating its own educated public constituency.

The cutting edge research in biomedical sciences actually represents a two-edged sword. The $4-6 billion spent on biomedical research in universities represents 98% of extramural funds allocated to biology federal agencies. The sword has cut a swath through organismal and environmental biology. Biomedical disciplines have displaced other biological sciences in many universities, and have dramatically altered the composition of all departments of biological sciences in research universities. It is increasingly common for a biology department to offer no course in ecology, or only a handful of environmental courses, taught by temporary instructors. Graduate students are not trained, and undergraduates are not educated. The reason that there are 24 times as many biologists in biomedical fields as in environmental biology lies in Washington.

Professor Hubbell noted that the molecular biology group at Princeton receives more extramural funding each year than the NSF spends on environmental biology nationwide. This is noteworthy only because Princeton has no medical school; in virtually any major research university with a medical school, faculty grants bring in nearly as much, as much, or far more money each year than NSF spends on environmental biology nationwide.

As a member of executive committees in two research university departments, I have witnessed how disparities in funding eliminate ecologists, environmental physiologists, and specialists in biodiversity. To win grant support for research, scientists with little access to grant funds must apply constantly, with each proposal requiring 3-6 weeks of intense labor, followed by a 6-8 month waiting period for results. With 85-98% rejection rates now common in environmental biology, repeated applications are necessary. Moreover, environmental grants are small, support fewer graduate students and postdoctoral fellows (if any), and produce fewer publications than research done on larger biomedical grants. When environmental faculty are evaluated for promotion or pay increases, they rarely if ever compare well in funds accrued, quantity of research accomplished, quality of research accomplished, and in graduate students trained in competition with with colleagues in biomedical fields within the same departments.

The results of these economic processes are predictable, and obvious. Some fields such as biodiversity and ecology which are now critical for guiding us through potential environmental nightmares ahead are already endangered or virtually extinct on research university campuses. Medical research institutes abound in the United States, but ecology institutes are rare, and often failing.

Finally, the kind as well as the amount of environmental

biology has been influenced by funding patterns. NIE would change the kind of environmental research accomplished in our research infrastructure, and taught in our research universities.

Once again, biology offers an example. NSF, which supports basic rather than mission-oriented research, is the primary sponsor of environmental biology. The most successful scientists in the field do work of little direct relevance to environmental issues, train graduates with little interest or expertise in practical problems, and teach courses of little relevance to the staggering environmental problems that face us. Washington has legislated those priorities. The NSF serves its role well under daunting budgetary constraints, but that role is not sufficient. We need much more mission-oriented applied environmental research, or basic research of clearly applied potential.

(3) Configuration of NIE with Government

NIE is needed because none of the agencies that now fund environmental sciences fill its very large niche. The primary obligation of every relevant agency is something other than mission-oriented basic and applied research in environmental biology and policy. NSF funds only basic research; Interior and USDA support non-competitive research on limited issues; NOAA and NASA strongly favor physical sciences; NIH is interested in health; DOE creates weapons and energy; EPA has been a strictly regulatory agency. None do NIE's job, which is an NIH for the environment.

The NIE could be: (1) an independent agency, with a director who reports to the President (like NSF or EPA); (2) a major unit under an Undersecretary for Environmental Science (one of two Undersecretaries), who reports to the Secretary; or (3) a unit under an Assistant Secretary for Environmental Science (one of 10 Assistant Secretaries).

Clearly, option (1) would ensure the best science, but would have mission-oriented research potentially distinct from those of the rest of government. Option (2) would change the EPA under its new name, giving regulation and science equal standing. Both (1) and (2) would give professional directors, confirmed by the Senate, a needed autonomy from political exigencies, and access to the President. Option (3) would help establish the agency, but would make science only one voice in 10 in the new Department.

(4) NIE in Checks and Balances: Merits of Educated Pleuralism

NIE could produce a check on executive control of information. H.R. 3847 elicited the threat of presidential veto because it called for the creation of a risk assessment and statistics center that would not be under the direct control of the President. A proven alternative would be creation of a large scientific

constituency, and educated public, competent in matters of concern to the regulatory arm of the Department of the Environment.

The NIH has created such a constituency; if any Surgeon General attempted to portray ideology as medical science, 50,000 competent and opinionated physicians and biomedical scientists would shout him down, and millions of informed citizens - alumnae of hundreds of thousands of courses in genetics, development, cell biology, or molecular biology - would deluge Congress with mail. An informed citizenry, backed up by independent and competent experts, will not tolerate tyranny in the name of science.

However, neither the EPA nor any other agency has created such a scientifically literate constituency of environmental scientists, other than government employees, fully versed in the kinds of science required by the society for environmental security. Indeed, the actual graduate training and undergraduate education that now exists is often irrelevant to these issues, and in any case is rapidly being eroded throughout our country. Much of what passes for environmental opinion is not, in fact, based on a grasp of scientific principles or established fact. Under such circumstances, in policy as well as politics, tyranny is a threat.

(5) Why an Independent Study?

If there were the political will to simply create structure (1) an independent NIE, or (2) an Undersecretary for Environmental Science, the Committee for NIE is convinced that the processes described are real, and that the need is there (Appendix A: National Institutes for the Environment - A Needs Statement). We would welcome legislative fiat. However, such a major departure from prior policy is probably unlikely without a comprehensive study of all features of the environmental sciences. If a bold step is not now possible, we recommend S. 2371 as a mechanism for commissioning such a study, and option (3), designation of an Assistant Secretary for Environmental Science, as a means of ensuring at least one voice in 10 in the new Department of the Environment.

A skeptic might ask why the Department should not undertake the study, rather than the National Academy of Sciences or some other independent agency. The answer is that a NAS study would ensure a thorough and comprehensive evaluation of relevant issues in all relevant fields, by the best scientists in those fields. An agency study will reflect the biases, intentional and unintentional, of the agency. The EPA, for instance, does not have outstanding scientists in all fields because many fields are not presently under its purview. Moreover, the regulatory bias of the EPA could not help but control the process of data acquisition, analysis, and interpretation. The goal of S. 2371 should be to provide the analysis that will help us chart our environmental future, not chisel old EPA habits into stone.

STATEMENT OF JAMES M. STROCK
ASSISTANT ADMINISTRATOR
FOR ENFORCEMENT AND COMPLIANCE MONITORING
U. S. ENVIRONMENTAL PROTECTION AGENCY
TO THE U. S. SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
HEARING ON S.2176

APRIL 24, 1990

Mr. Chairman, Members of the Committee, I am honored to appear before you today to offer EPA's support for S. 2176 with specific exceptions I will address later. We believe this bill places the proper emphasis on the enforcement of our nation's environmental laws.

EPA endorses without qualification the goal of enhanced criminal enforcement. As Deputy Administrator Habicht said to this committee on November 15, 1989, "[t]here can be no question that criminal enforcement is our most potent compliance tool. Indeed, the success of that program to date has been historic, and a source of pride to all who have had some role in its development...." Today we see the need to improve the balance among EPA's various enforcement tools -- the administrative, civil judicial, and criminal statutory authorities -- and to do this in a way that respects fiscal realities. We are determining how best to direct and increase EPA's enforcement resources through our "Five Year Strategic Plan", "Enforcement in the 90's Study" and other ongoing internal studies.

2

The criminal enforcement tool is highly efficient and effective in encouraging compliance, through the enormous deterrent effect engendered from the fear of imprisonment and fines for environmental crime. The existence of criminal enforcement motivates people and companies to bring themselves within EPA's overall regulatory scheme in a way that civil judicial and administrative enforcement rarely can do alone. While both corporations and individuals pay penalties for environmental violations, only individuals can go to prison -- a sanction that no one can pass along to the American consumer as just another cost of doing business.

EPA currently employs 54 criminal investigators - special agents who are granted full law enforcement authority by the 100th Congress to make arrests, carry firearms, and execute arrest and search warrants. To meet increasing demands for criminal investigations of larger and complex facilities and from the increasing number of leads, the number of criminal investigators has grown over the last three years from 47 investigators in FY 1989 to 61 investigators in FY 1991. We intend to continue to seek increases in the total number of our criminal investigators in the future.

After EPA selects those criminal cases which have the best "deterrent" effect, the Agency refers cases to the FBI for investigation and in some instances investigations are referred to

the few States and municipalities that have criminal enforcement programs. EPA has an excellent working relationship with the FBI, which performs a valuable service by providing front-line coverage in the areas of the country which are not near EPA regional offices.

Despite our outstanding working relationship with the FBI, there are reasons why EPA is enhancing its own criminal investigations program. For example, investigating persons responsible for illegally abandoning unlabelled drums of toxic wastes involves specialized techniques and training substantially different from those used to apprehend espionage agents, embezzlers, bank robbers and other types of conventional criminals. While other agencies have their own, competing priorities, we believe EPA knows environmental priorities best. EPA's personnel have the training and experience to do this with the greatest protection of the health of personnel and with the greatest technical proficiency. We welcome the support this bill provides in furthering our goal of increasing the total number of criminal investigators.

Considering the level of resources allocated to criminal enforcement at EPA, its achievements are remarkable. Criminal enforcement costs little considering the large results that it achieves. Since 1983, over 450 defendants have been charged with environmental criminal offenses, and over 300 defendants have plead

guilty or been convicted. Individual defendants have been ordered to spend over 650 months in incarceration because of their environmental crimes. Importantly, the number of defendants convicted has increased dramatically from 28 in 1983 to 78 in 1989, as the number of investigators has increased from 23 in 1983 to 47 in 1989. Clearly, increasing the number of criminal investigators will pay off with increasing results and deterrence.

The numbers show that criminal enforcement comes close to paying for itself. Presently the criminal enforcement program is generating about $8M a year as a 3-year average ($12.2M in 1989) of fines assessed, of which typically about one half is suspended.[1] Thus, at present levels, criminal enforcement is on average collecting 50% - 80% of the total cost of criminal enforcement at its present level of about $7.5M per year. We can project that this level of enforcement cost recovery should increase because of the tougher sentencing recommendations coming out of the U.S. Sentencing Commission.

At the same time, considerably more investigative demands have been placed upon criminal enforcement in recent years, as Congress reauthorizes environmental legislation. Public awareness of environmental violations grows daily, and the public is prepared to help our enforcement efforts. EPA is receiving a steady stream

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[1]Since EPA began keeping these statistics in 1987, actual figures are: 1987 - $3.6M; 1988 - $8.4M; and 1989 - $12.2M.

of tips and leads from the public, from within EPA programs, and from States without fully developed criminal enforcement programs.

The Administrator, Deputy Administrator, and I note with appreciation that the bill also would establish the National Enforcement Training Institute. This is an area EPA has identified as a need which would enable EPA to expand upon the training EPA is currently able to provide. Presently, we provide some training State personnel. EPA is currently studying the Institute concept to see how it might improve upon existing training programs.

I now would like to discuss with you two specific aspects of the proposal. The bill includes a the "Pollution Prosecution Fund" which would support the purposes of the bill by the use of money from penalties collected. Although your goals are laudable, we must oppose any such earmarking of specific funds. Instead we support a line item appropriation in the FY 92 budget. Due to the current advanced stage of the FY 91 budget process, it would not be possible to implement this proposal at any earlier time. We will work closely with Congress in this regard to support such proposals in future President's budgets since we view the appropriations process as the best forum for competing programs to vie for limited resources. Secondly, we must also oppose any statutory prescription of FTE levels. The Administration opposes all such work year floors because they deny program managers needed

flexibility to determine appropriate staffing levels for specific activities.

Mr. Chairman, I appreciate the opportunity to present my statement to the Committee today. EPA believes that this bill is timely and important to improving environmental enforcement and compliance in our Nation. We support this bill as amended by our comments suggested before your committee here today. I am grateful for your goodwill in proposing this bill, and I now will do my best to answer any question that you might have for me at this time.

JOSEPH I. LIEBERMAN
CONNECTICUT
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May 9, 1990

Mr. James Strock
Assistant Administrator for Enforcement
U.S. Environmental Protection Agency
401 M Street, S. W.
Washington, D. C. 20460

Dear Mr. Strock:

I wanted to thank you for taking the time to testify at the Environment and Public Works Committee hearing on S. 2176. Your insights and thoughtful comments on the enforcement process were extremely helpful and I hope you will continue to provide the Committee with your views on these important issues.

Enclosed are some questions for the record which I did not have an opportunity to ask at the hearing. I look forward to a continuing dialogue on these issues.

Best regards.

Sincerely,

Joseph I. Lieberman

Enclosure
JIL:jar

PANEL I

Questions for Jim Strock

1.TYPE OF CRIMINAL CASES

In the recent report by your office setting forth EPA's four year strategic plan for enforcement, you stated that with respect to criminal enforcement, "EPA generallty has been reactive". The report further stated that you now intend to emphasize "targeting, multi-media and geographic initiatives". Can you expand on these initiatives and discuss how the increase in criminal investigators and the training institute will help you fulfill these goals.

2. One concern about the criminal program that we heard at a hearing last November is that it needs to be better integrated into the Agency's overall enforcement programs. Do you have any specific plans for achieving this goal? What instructions have you given to your staff for handling a case which might be pursued either civilly or criminally?

2.AMOUNT OF FINES

In your written testimony, you point out that today, at present levels criminal enforcement is collecting on the average 50-80 percent of the cost of enforcement and that you project that this level of enforcement cost recovery should increase because of the tougher sentencing recommendations coming our of the U.S. Sentencing Commission.

Can you elaborate on these recommendations and why you believe they will lead to greatr cost recovery?

3. LOCAL AND STATE INVOLVEMENT

In his written testimony, Don Mielke on behalf of the National District Attorneys Association has stated that as many a s 500 investigators and technical support personnel should be trained annually in criminal enforcement of environmental laws (and this does not include attorneys). How do you intend to involve state and local officials in the training institute, both in terms of setting overall policies and providing training opportunities.

4.CIVIL INVESTIGATORS

How would the Agency utilize the new civil investigators authorized under this bill?

4. TRAINING

The EPA Inspector General recently issued a series of reports on the enforcement program in which he concluded that EPA lawyers and technical personnel need extensive training in negotiation skills. Do you envision the Institute as providing some of this needed training?

5. LABORATORY TRAINING

In his written testimony, Don Mielke also pointed to an extremely pressing need for skilled laboratory work in the criminal investigation of environmental work and he urged EPA laboratories to provide the leadership for the nation. Of course, without proper laboratory work estabishing the evidentiary basis for a case, the case will not survive in court.

Do you agree that EPA should provide a leadership role in laboratory skills? How do you envision using the provisions of this bill to help provided the type of laboratory work which is necessary to support criminal cases?

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 8 1990

OFFICE OF ENFORCEMENT

The Honorable Joseph I. Lieberman
United States Senate
Washington, D.C. 20510

Dear Senator Lieberman:

Thank you once again for giving me the opportunity to provide testimony on April 24th regarding the very important issues raised in S.2176, the "Pollution Prosecution Act of 1990." This Agency is heartened by your informed attention to enforcement matters and appreciates your efforts to strengthen enforcement. By this letter, I am following up to you on the issues of training and investigator-legal/technical support on which you raised at the hearing.

At all levels -- Federal, state, and local -- environmental criminal enforcement is currently hampered by a lack of training and a lack of legal/technical services. A crucial part of that technical support is laboratory support. As more criminal investigators from all jurisdictions become involved in environmental criminal enforcement, there will be an accompanying need for well-trained chemists, expert witnesses, appropriate laboratory space and instrumentation. The need for legal support will also grow as the number of criminal referrals increase concurrently with the increase in criminal investigations. EPA believes that these "program infrastructure" issues must be explicitly addressed in any general effort to expand EPA's criminal enforcement capabilities.

Many state and local laboratories currently are not trained or equipped to provide adequate support for state and local environmental criminal investigations. The establishment of the proposed National Training Institute would be crucial in alleviating the training issue as to state and local laboratory support as well as other investigator-technical support so necessary to the success of environmental criminal prosecutions.

The EPA expects that the investigation of environmental crimes by all jurisdictions will become more frequent and routine. In the coming decades, law enforcement at all levels will consider environmental criminal violations as priorities.

It is our firmly held conviction that there is a need, as Mr. Donald Mielke suggested in his testimony, to expand and enhance EPA's Regional laboratories regarding their ability to provide criminal support. This would solve an immediate need for state and local investigations. Gradually, as training through the proposed Institute creates the proper expertise, reliance on the federal laboratories by non-federal jurisdictions should decline. In addition, the Regional concept would partially overcome the difficulties created by sending all criminal investigative samples to one laboratory. The NEIC laboratory could continue to be the expert in criminal investigative-technical support, providing analyses for EPA and the FBI, and NEIC would retain training and oversight functions for EPA Regional laboratories as they relate to criminal investigations.

Please do not hesitate to let me know if you have any additional observations, comments, or questions. EPA is grateful for your leadership in these matters of mutual concern.

Sincerely,

James M. Strock
Assistant Administrator

FIRST JUDICIAL DISTRICT ATTORNEY'S OFFICE
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REMARKS OF DONALD E. MIELKE
TO THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
OF THE UNITED STATES SENATE
APRIL 24, 1990

Mr. Chairman and distinguished members of the Committee:

The Committee's gracious invitation to a local prosecutor to provide testimony today is significant because it serves as recognition that local law enforcement must have a key role in the future of our nation's environmental protection. As the elected District Attorney in a community of 500,000 persons in the metropolitan Denver area, I have become increasingly aware that local officials are often the first to learn of criminal violations of state and federal environmental laws. In my role as a member of the Board of Directors of the National District Attorneys Association, and as the Chairman of the Environmental Protection Committee of that organization, I have also learned that our citizens have increasingly come to expect local officials to deal with hazardous materials violations and other crimes which relate to the environment as a victim.

As the Committee may know, the criminal prosecution of hazardous materials matters is undergoing rapid growth and change. Only a few years ago, the prosecution of hazardous waste "dumpers" was virtually unknown. It was not until the public learned of the events as Love Canal and Times Beach that citizens began to demand greater accountability in the detection and prosecution of environmental crimes.

Today, there is a growing public sentiment that persons and corporations who criminally dispose of hazardous materials are as dangerous to society as the "traditional criminals" responsible for street crime. Indeed, an environmental criminal could become the next "mass murderer", even though the cancers, birth defects and other problems he causes may take years to appear.

Until a few years ago, it was generally thought that the enforcement of environmental protection laws was largely the province of the federal government through the Environmental Protection Agency. The last few years have taught us that the resources of the EPA have been stretched beyond the breaking point in criminal investigations. With only forty-eight special agents nationwide, the EPA can handle only a fraction of the serious complaints which it receives. Its ability to help state and local law enforcement efforts has therefore been limited.

It was also thought some years ago that the best approach to pollution law enforcement was to permit state attorneys general to obtain civil injunctions and civil fines against polluters. While such actions may have their place, experience has taught us that true polluters view civil governmental lawsuits as a part of the cost of doing business. Until a potential for criminal prosecution is added to the equation, many of these environmental criminals will continue to illegally store, transport and dump hazardous wastes in blatant violation of the law.

Current criminal enforcement of the environmental statutes at the local level is hampered by two major problems: lack of training and lack of adequate technical and laboratory support. These problems cannot be effectively addressed without leadership from the Congress.

As the Committee may know, only a relatively small number of investigators and attorneys have been trained in the special techniques and procedures required for the successful prosecu-

tion of environmental crime. Yet, without a sophisticated understanding of the environmental statutes and of the pitfalls associated with these complex cases, they cannot be investigated or prosecuted effectively.

Our biggest federal ally in this efforts has been the EPA's Hazardous Materials Investigation Training Program at the Federal law Enforcement Training Center in Glynco, Georgia. Unfortunately, the excellent curriculum offered at Glynco is presently too small to teach the advanced skills necessary to the large numbers of investigators and technical personnel desperately needed at the state and local level.

There are other training systems in place, some of which exist within regional hazardous waste control entities funded in part by the states and in part by the EPA's National Enforcement Investigation Center in Lakewood, Colorado. Some of the organizations which sponsor this training have a decidedly civil enforcement bias. Therefore, meaningful training in the criminal investigation of pollution-related offenses can be difficult to find.

Our second major stumbling block to effective local criminal prosecution has been the frequent unavailability of adequate laboratory and technical resources. As the Committee knows, the investigation of hazardous materials crimes requires a high degree of scientific sophistication which is not generally available within state and local laboratories. Sample collection procedures and testing techniques are complex and constantly changing, and require state-of-the-art equipment and technical expertise. Even the best testing procedures must be supported by readily-available expert witnesses who can testify that the results have scientific validity within a reasonable degree of scientific certainty.

Once again, the greatest friend of local law enforcement has been the EPA. Its laboratories at the National Enforcement Inves-

tigations Center are responsible for the analysis of samples in criminal cases from across the entire United States. Even the Federal Bureau of Investigation lacks the resources of the NEIC laboratory, and all FBI pollution case samples are sent to the EPA for testing.

Unfortunately, the NEIC laboratory has only forty scientists and thirty field engineers. The relatively small size of this national laboratory puts a great strain on the availability of its equipment and its personnel, and that has a direct impact on state and local environmental enforcement.

In a recent case in my jurisdiction, a deputy prosecutor was forced to send a hazardous waste sample to a private laboratory because the backlog at the EPA laboratory would not permit the sample to be tested within the time required to ensure a scientifically reliable result. The use of private laboratories is typically very expensive, and the Committee can understand how the cost could in itself deter some prosecutors from undertaking a pollution case which might require variety of scientific analyses.

Even if the EPA laboratory could process every local sample in a timely fashion, expert testimony is still required during preliminary proceedings and trial to validate the test results. At its present level of staffing, it is unreasonable to expect that EPA scientists will be available to testify in court cases brought by local prosecutors across the entire country.

As the need for scientific support of locally-brought cases became more obvious, some state laboratories have been created to analyze hazardous materials samples. Often, that function has been assigned to state health departments, in part because they have seemingly similar regulatory responsibilities.

Health department personnel are often untrained in the forensic procedures necessary to properly test and preserve evidence and maintain the chains of custody necessary to make that evidence admissible at trial. In my own jurisdiction, a case ended abruptly when one of the state laboratories tested the sample and promptly discarded it. Unless such state laboratories have much greater training and much more frequent responsibilities in the forensic arena, it is likely that such errors will continue to plague the effective prosecution of environmental crimes at the local level.

While great strides have been made in the investigation and prosecution of environmental crimes, it is now time for a quantum leap forward. The Committee and the Congress as a whole are uniquely suited to address this problem as the expansion and reorganization of the Environmental Protection Agency are considered.

There is little doubt that the EPA will continue to be the principal repository of scientific and investigative expertise for the management for pollution cases. In recognition of that fact, Senator Lieberman has introduced legislation (S.2176, The Pollution Prosecution Act of 1990) which would greatly increase the number of EPA criminal investigators and create a national training institute.

At its Fall 1989 Board Meeting, the National District Attorneys Association adopted a resolution urging Congress to approve legislation of this kind. The NDAA resolution specifically recommended an increase in the number of EPA special agents and the creation of a National Enforcement Training Institute to prepare federal, state and local lawyers, inspectors, investigators and technical experts for the enforcement of the nation's environmental laws. A copy of the resolution is attached to these remarks.

We favor the expansion of the EPA's criminal investigative capability for several reasons. Chief among these reasons is our need for federal assistance in the training and seasoning of our state and local investigative personnel.

Other successful examples of federal-local cooperation exist which can serve as models for this type of federal assistance. As the Committee may know, the United States Drug Enforcement Administration has for many years used local task forces comprised of DEA special agents and local law enforcement officers loaned to the DEA by their respective police agencies. Acting under the direction of DEA special agents, the local law enforcement officers participate in joint federal-local investigations of drug trafficking.

The result is that far more drug pushers are caught by the combined effort that could ever be snared by federal agents alone. In return for their assistance, the local detective receive invaluable training which they take back to their own agencies after their tour of duty with the task force has ended.

A similar program in which the EPA has joined forces with local law enforcement officers is currently in place in Seattle. Under the direction of EPA special agents, this task force investigates significant regional pollution crimes with an effectiveness which exceeds what local officials or the EPA could accomplish acting alone. A significant increase in the number of EPA special agents could facilitate the spread of the task force idea to a number of other cities across the country.

Where there is no EPA-local task force, it is necessary to have additional special agents and support personnel to provide consultation and advice to local law enforcement officials who contemplate the preparation of a pollution case. In my own jurisdiction, the collaboration between the NEIC and my deputy

district attorneys led to the first successful felony criminal prosecution of any pollution case in Colorado.

Certain other proposals may do much to address the need for greater federal participation in the training of pollution case investigators. I strongly urge you to favorably consider any legislation which would greatly increase the availability of the Hazardous Materials Investigation Training program which is currently offered at Glynco, Georgia. Perhaps as many as 500 investigators and technical support personnel should be trained annually. If this number is too large to be managed at Glynco, other federal training sites such as the Federal Law Enforcement Training Center's facility in Arizona could offer the same curriculum.

We know that the Congress will now consider the proposal to elevate the Environment Protection Agency to a cabinet-level position. At its Board Meeting in February of 1990, the NDAA adopted a resolution in support of the creation of a Department of the Environment. In our view, the new Department will have the standing necessary to address the expanding importance of environmental concerns at all levels, including those of state and local governments. A copy of the resolution is attached for the Committee's review.

There has been much talk among environmental enforcement officials about who should be trained to investigate pollution cases. Some people have argued that health department personnel and other so-called "regulators" should receive priority, while others have promoted the idea that experienced police detectives are better suited to investigate these cases.

I have come to learn through our own experience that the effective investigation of pollution crime requires a marriage of police and technical skills to an extent rarely seen elsewhere in law enforcement. It is virtually impossible for police

officers to learn more than a modest amount of the sophisticated scientific techniques which support hazardous waste investigations. Conversely, the technical people often lack the investigative background necessary to assemble a criminal case. I therefore recommend that federal training programs continue to be offered to police and scientific personnel together in recognition of the fact that the two professions must be fully interdependent if we are to investigate and prosecute these cases successfully.

The Environmental Protection Agency is also the cornerstone of the solution to the environmental laboratory problem. In some respects, the relationship between the EPA labs and local law enforcement agencies is similar to the relationship between the police and the Federal Bureau of Investigation laboratories in the 1960s. During that era, the FBI maintained the finest forensic laboratory in the world. Although some state and local facilities could perform routine tests, the personnel and scientific techniques at the FBI laboratory were far more sophisticated than anything local government could offer.

The nation needs the EPA laboratories to provide the same leadership and technical assistance in the criminal investigation of pollution matters. In my view, there are two alternative means to accomplish this goal. First, it may be possible to transfer much of the civil investigation workload from the laboratory at the NEIC to the various regional EPA laboratories across the country. Once free of its civil case analyses, the NEIC laboratory could devote itself to criminal matters in the same fashion as the laboratory of the FBI.

In the alternative, it may be appropriate to expand and enhance the abilities of the regional laboratories of the Agency. If technical assistance were available at the regional level, law enforcement officers and their hazardous materials samples would have less far to travel to reach the destination

lab. In turn, the Agency's scientists and engineers would also have less far to travel in order to provide expert testimony in court. Certainly, the use of regional laboratories could help to enhance the communication between the EPA's scientific personal and local law enforcement officers in the field.

Whatever approach the Congress determines best for the EPA laboratories, I strongly urge the expansion of training opportunities for state and local scientists at the EPA. While I do not anticipate that state and local laboratories will ever supplant the work of the EPA, some more routine analyses may become possible as state and local sophistication increases. The Environmental Protection Agency is clearly the most logical and best prepared entity to provide scientific training to state and local officials.

Because the EPA is so central to the success or failure of local environmental law enforcement, it is appropriate to comment on certain aspects of the proposed reorganization the enforcement arm of the Agency. Apparently, there has been some discussion that the criminal investigators of the NEIC should be relocated to Washington in a centralized office.

I strongly urge the Congress and the leadership of the Environmental Protection Agency to reconsider any such plan. In all my exposure to various federal programs, I have never been aware of a more effective unit than the 1-2 punch of the NEIC special agents and the scientific and technical support from the NEIC laboratories in the same building. The criminal investigators and the scientists are in close communication, and we have seen examples of how this working relationship has improved the achievement of the Agency's goals.

To reabsorb the criminal investigators within the federal bureaucracy in Washington would almost certainly decrease their overall effectiveness and their accessibility to local and state

law enforcement agents. The NEIC is effective and responsive within the limits of its current resources, and it should not be dismantled.

Perhaps the role of the NEIC should even be expanded to include responsibility for the proposed National Training Institute. It would make good fiscal sense to house the Institute at or near the NEIC's Lakewood, Colorado facility so that the significant concentration of investigative and technical experts at the NEIC can be made more readily available to the Institute's participants.

Of course, other federal policies and programs have great impact upon the criminal prosecution of environmental crimes. For example, as Chairman of the NDAA's Environmental Protection Committee, I have learned that the Department of Justice has a small but effective cadre of attorneys in the Environmental Crimes Section of the Land and Natural Resources Division.

These attorneys are expected to provide much of the technical expertise in the preparation and prosecution of federal pollution crimes. Unfortunately, there are only twenty-four lawyers in this section, compared to more than 200 attorneys assigned to civil enforcement tasks at the EPA. I urge the Congress to consider a dramatic expansion of the Environmental Crimes Section in preparation for what I expect to be a great increase in the federal prosecution of pollution offenses.

As the Committee may know, it is regrettably true that the federal government itself is a major polluter. The Rocky Flats Nuclear Weapons Facility is located in my jurisdiction, where a major criminal investigation has been under way for several months. All of us have seen national news reports which allege that the Department of Defense has been requiring the purchase of hazardous wastes at auction as a part of a package of desir-

able surplus items. Obviously, hazardous wastes should not be transferred to unqualified persons in this fashion.

It is therefore time for the federal government to consider a waiver of sovereign immunity as it pertains to environmental crimes at federal facilities and within federal enclaves. Federal contractors and others who have concealed themselves behind the cloak of such immunity must become fully accountable to state and local officials even to the extent that they become subject to criminal sanctions under existing pollution laws.

The National District Attorneys Association has also adopted a resolution concerning the sovereign immunity question. At its 1989 Annual Meeting, the NDAA determined that it should urge Congressional action to address how federal institutions and employees may be held to the same standard of environmental accountability which governs state and local governments and private industry, including the imposition of criminal penalties. A copy of the resolution is attached for the Committee's consideration.

As the Congress considers environmental enforcement priorities, it may be useful to consider models which have worked well in other aspects of criminal justice. I offer three of these for the Committee's consideration.

As you know, state and federal prosecutors have made increasing use of forfeiture statutes and public nuisance laws to attack a variety of criminal problems. The drug model is well known: personal property or real estate which is used in furtherance of the possession or trafficking of illegal substances is subject to forfeiture. Federal, state and local authorities have seized everything from planes and motor vehicles to houses and businesses.

In Colorado, we even have the authority to seize the automobiles of persons who are Habitual Traffic Offenders. The judicious use of this power has helped to make significant cuts in drunk driving and other serious traffic crimes.

In the criminal enforcement of the environmental statutes, forfeiture actions can be used to raise the stakes for criminal polluters. For example, the trucks used in the illegal transportation of hazardous substances can be seized. These forfeitures are most effective when they are performed in addition to whatever criminal sanctions are available. We have often found that the economic loss to criminals which results from a forfeiture is greater than the total amount of fines which are imposed against them. I therefore encourage the Congress to consider broadening the forfeiture power of the federal government in the environmental area.

A second successful approach to criminal justice has been the creation of model statutes which are made available for uniform adoption by the states. With all the attention that has been given to major environmental crimes in the recent past, it is disturbing to remember that some states still are without strong and appropriate prohibitions against criminal pollution of the environment. A few states even lack felony criminal sanctions.

When I was a state legislator, I was concerned that the forced imposition of uniform laws was a violation of a state's right of self-determination. However, when the impact of criminal conduct readily reaches across state lines, as it does with the unlawful transportation and disposal of hazardous materials, the states should be strongly encouraged by federal law and policy to adopt appropriately drafted model legislation to combat the problem.

I urge the Congress to consider legislation which provides incentives to states which adopt model statutes providing criminal penalties for the pollution of the environment. I strongly believe that the imposition of uniform sanctions across the country can do much to prevent the movement of potential polluters across state lines in an effort to escape effective prosecution.

A third approach to more effective environmental crime enforcement is known in some quarters as "fine-sharing". When the criminal investigation of major pollution incidents results in the collection of huge fines from the defendant corporation, it is appropriate to share those fines among the local, state and federal entities which participated in the investigation. For example, when a multi-million dollar fine was levied against Shell Oil as the result of a case brought by the District Attorney of Solano County, California, the money derived from that penalty was shared with various governmental entities.

It is obvious that, when such monies are available, local and state officials are far more inclined to devote resources to complex investigations. It is appropriate for the Congress and the administration of the Environmental Protection Agency to develop ways in which local jurisdictions that assist the federal government in major pollution investigations may share in the revenues which are derived from fines in cases brought to a successful conclusion. The availability of "fine-sharing" should become a matter of public knowledge to encourage polluters to think twice about what resources may be devoted to a criminal investigation of their activities.

Eventually, I expect that the investigation of environmental crimes by local officials will become commonplace and that environmental offenses will become prosecutorial priorities. We have seen the impact of the public's growing awareness of such criminal problems as child abuse, drunk driving and domestic

violence. As our constituents at every level become increasingly aware of the immediate and long-term hazards posed by criminal polluters, you and I will be expected to develop creative and effective ways to approach the problem. I sincerely hope that ours will be the generation of public officials which is remembered as the first to fully act upon the realization that the environment itself can be a crime victim.

NATIONAL DISTRICT ATTORNEYS ASSOCIATION

Fall Board Meeting
November 9-12, 1989
New Orleans, Louisiana

RESOLUTION

URGING THE CONGRESS OF THE UNITED STATES TO ADOPT LEGISLATION TO INCREASE THE NUMBER OF CRIMINAL INVESTIGATORS IN THE EPA AND TO ESTABLISH A NATIONAL ENFORCEMENT TRAINING INSTITUTE TO TRAIN FEDERAL, STATE, AND LOCAL LAWYERS, INSPECTORS, INVESTIGATORS AND TECHNICAL EXPERTS IN THE ENFORCEMENT OF OUR NATION'S ENVIRONMENTAL LAWS.

WHEREAS, the Congress is considering legislation to provide better enforcement of the environmental laws; and

WHEREAS, the National District Attorneys Association strongly endorses all efforts that will enforce our nation's environmental criminal laws; and

WHEREAS, legislation has been proposed that will (1) more than triple the number of criminal investigators in EPA, from 48 to 175; and (2) establish a National Enforcement Training Institute to train federal, state and local lawyers, inspectors, investigators and technical experts in the enforcement of our nation's environmental laws; and

WHEREAS, local prosecutors have used the resources of the National Environmental Investigator Center (NEIC), both criminal investigators and lab support; and

WHEREAS, the present federal case load at the NEIC takes all the the resources available, and there is a tremendous need for support of state and local investigations; and

WHEREAS, there have only been a relatively small number of local criminal investigators that have been trained at the EPA's Hazardous Materials Investigation Training Program at the Federal Law Enforcement Training Center in Glynco, Georgia; and

WHEREAS, local law enforcement has been hampered by the lack of trained local investigators in the special techniques and procedures required for the successful prosecution of environmental crime.

NOW, THEREFORE, BE IT RESOLVED THAT THE NATIONAL DISTRICT ATTORNEYS ASSOCIATION:

1) supports federal legislation which a) increased the number of criminal investigators in the Environmental Protection Agency; and b) establishes a National Enforcement Training Institute to train federal, state and local lawyers, inspectors, investigators and technical experts in the enforcement of our Nation's environmental laws; and

2) authorizes the Executive Director to transmit this resolution to the President of the United States, to the Environmental Protection Agency Administrator, William Reilly, and to the appropriate members of his staff, to the members of Congress, and to other interested associations.

NATIONAL DISTRICT ATTORNEYS ASSOCIATION

Midyear Meeting
February, 1990

RESOLUTION

URGING CONGRESS AND THE PRESIDENT TO ELEVATE THE ENVIRONMENTAL PROTECTION AGENCY TO CABINET-LEVEL STATUS AND CREATE A DEPARTMENT OF THE ENVIRONMENT.

WHEREAS, the problem of environment threatens the safety of our citizens as well as the very future of our society so we must mount a comprehensive, coordinated effort for protecting the environment against all forms of pollution; and

WHEREAS, the President has endorsed the concept that would elevate the Environmental Protection Agency (EPA) to cabinet-level status; and

WHEREAS, legislation has been introduced by members of both Houses of Congress (S 2006, HR 3847) to elevate the EPA to the Department of the Environment; and

WHEREAS, the local prosecutors have been hampered by the lack of trained local investigators in the special techniques and procedures required for the successful prosecution of environmental crime and have been hampered by the lack of laboratory support for their investigations; and

WHEREAS, a Department of the Environment will have the influence and stature to help and assist local prosecutors; and

WHEREAS, the nation's prosecutors support all initiatives that will be a national commitment to protect our environment and allows local enforcement entities the resources to move aggressively against those who have made the environment a crime victim.

NOW, THEREFORE, BE IT RESOLVED THAT THE NATIONAL DISTRICT ATTORNEYS ASSOCIATION:

1) supports and urges the President and the Congress to elevate the U.S. E.P.A. to cabinet-level status and create a Department of the Environment; and

2) supports measures within this new department that will help and assist local prosecutors; and

3) authorizes the Executive Director to transmit this resolution to the President of the United States, to the Environmental Protection Agency Administrator, William Reilly, to the members of Congress, and to other interested associations.

NATIONAL DISTRICT ATTORNEYS ASSOCIATION

Summer Meeting
July 16, 1989
Portland, Maine

RESOLUTION

URGING THE CONGRESS OF THE UNITED STATES TO ADOPT LEGISLATION CLARIFYING THE WAIVER OF FEDERAL SOVEREIGN IMMUNITY TO SUBJECT FEDERAL FACILITIES AND AGENTS, EMPLOYEES OR OFFICERS OF THE UNITED STATES TO THE SAME ACCOUNTABILITY THAT APPLIES TO STATES, LOCAL GOVERNMENTS AND PRIVATE INDUSTRY, ESPECIALLY CRIMINAL SANCTIONS, INCLUDING FINE OR IMPRISONMENT.

WHEREAS, a significant number of the most dangerous hazardous waste disposal sites in the United States that pose a significant threat to public health and the environment are located at federal facilities; and

WHEREAS, federal facilities are among the worst violators of federal and state solid and hazardous waste laws; and

WHEREAS, Executive Order 12088 requires all federal agencies to comply with all applicable pollution control standards; and

WHEREAS, the states have experienced significant problems in bringing federal facilities into compliance with federal and state solid and hazardous waste laws because the federal facilities refuse to acknowledge state regulatory authority over their facilities; and

WHEREAS, disputes over state enforcement authority at federal facilities has caused costly, time-consuming and acrimonious litigation between the states and the federal agencies; and

WHEREAS, the U.S. Environmental Protection Agency's and the states' lack of clear enforcement authority has eroded the public confidence in the federal government's willingness and ability to address the serious solid and hazardous waste management problems at federal facilities; and

WHEREAS, the states' role in enforcing federal and state solid and hazardous waste laws against recalcitrant federal agencies has become more important because of the

U.S. department of Justice contention that the Constitution prohibits EPA from enforcing solid and hazardous waste laws at federal facilities and from imposing sanctions at federal agencies; and

WHEREAS, federal agencies must be subject to the same sanctions as private industry, states , and local governments for violations of federal and state solid and hazardous waste laws to deter violations of and ensure compliance with these laws; and

WHEREAS, the Congress is considering HR 1058 and S 1140, which would clarify the federal sovereign immunity waiver under the Resource Conservation and Recovery Act.

NOW, THEREFORE, BE IT RESOLVED THAT THE NATIONAL DISTRICT ATTORNEYS ASSOCIATION:

1) supports HR 1056 and S1140, legislation which would a) provide states with comprehensive enforcement authority for hazardous waste programs; b) subject federal facilities to the same accountability, procedural, and substantive enforcement provisions that apply to state and local governments and private industry; c) enhance proper waste management practices at federal facilities in the future by ensuring that federal agencies comply with federal and state solid and hazardous was laws; and d) most importantly, subject any agent, employee, or officer of the United States to any criminal sanction (including, but not limited to, fine or imprisonment) under any state solid or hazardous waste law; and

2) authorizes the Executive Director and General Counsel to transmit this resolution to the President of the United State and to the Environmental Protection Agency Administrator, William Reilly, and to the appropriate members of his staff; to Secretary Cheney of the Department of Defense; to Admiral Watkins of the Department of Energy; to the members of Congress; and to other interested associations.

TESTIMONY

OF

JUDSON W. STARR, ESQUIRE

VENABLE, BAETJER, HOWARD & CIVILETTI

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ON

APRIL 24, 1990

INTRODUCTION

Thank you for the opportunity to appear today before the Committee to address the merits of the Pollution Prosecution Act, S. 2176, and to attempt to answer any questions you might have with regard to criminal enforcement of the nation's environmental laws. It is important for me to say at the outset that it is a privilege for me to appear with EPA's Assistant Administrator James Strock. Similarly, I am also pleased to join the rest of the panel whose hard work and dedication to the criminal enforcement of the environmental laws at the state and federal levels is well known.

1. Background

Two days ago, on April 22, 1990, hundreds of thousands of people nationwide celebrated the second Earth Day in twenty years. During the weeks prior to last Sunday, media coverage of environmental issues, ranging from the president's position on global warming to local recycling programs, reached an all time high. As the last presidential campaign foretold, the environment has indeed become the issue of the nineties.

The heightened public awareness of environmental issues is coupled with an increased demand that violators of environmental laws be identified and prosecuted. The proposed Environmental Crimes Act and the Clean Air Amendments, both of which contemplate broadening the scope of conduct deemed criminal under environmental laws and increasing criminal penalties, reflect this demand.

Criminal enforcement of the environmental laws is neither a new idea nor, as the statistics below evidence, is it un-Republican. Few can fault the Reagan years, when viewed objectively, for lack of white collar prosecutions. In banking, securities and defense procurement, the overall record has been generally applauded. In 1982 in the middle of Reagan's first term and right in the midst of the Gorsuch scandal, an initiative similar to those in the other heavily regulated fields was begun in the environmental area. With the blessings of the top policymakers at both the Department of Justice and at EPA, those agencies combined to form the Environmental Crimes Unit, the first program designed to enforce the criminal sanctions of the environmental laws.

The establishment of the Environmental Crimes Unit was an idea whose time had come. Initially, EPA, like the SEC, DOD and those agencies which regulate the banking industry, had allowed for a period to adjust to the requirements of newly enacted environmental laws. Violators were punished through administrative sanctions intended to remove any economic advantage the violator had obtained over competitors. After a period of time, EPA began using civil sanctions designed to remove any competitive advantage and to punish the offending parties by imposing higher fines. Consent decrees with stipulated penalties were employed as a means of obtaining prospective compliance.

By 1982, however, the limitations of administrative and civil sanctions had become apparent. Both punished only the corporate entity -- and not the decision-makers responsible for the acts performed in the corporate name -- through fines which were generally charged back to the consumer through higher prices. Environmental penalties were viewed simply as a cost of doing business. Missing was any deterrent effect. The government learned that the most cost-effective way to influence corporate decision-making and to enhance compliance with environmental laws is to focus criminal enforcement efforts on the decision-makers themselves, a principle long applied to other heavily regulated fields. Since 1983, over 598 indictments have been brought, over 455 corporations and their officers and managers have been convicted, over $26 million in fines have been paid and over 280 years of jail time have been imposed, of which over 100 years have actually been served.

2. S. 2176

Although EPA and the Department of Justice have slowly and steadily been building an impressive record since 1982, there still remains much that Congress can do to bring criminal enforcement to the forefront. Most important is the need to add more investigative resources. EPA's criminal investigators are the backbone of the criminal program. Yet, some states

have nearly as many criminal investigators to police their local environmental compliance as EPA has to investigate environmental crimes in all fifty states. The above-cited statistics are remarkable not only because they demonstrate the increase in enforcement efforts, but because they were achieved by such a small number of dedicated, hard-working criminal investigators.

In the past, EPA's chief inspection resource consisted of scientists and others with technical background. Illegal acts concealed in a morass of paperwork or committed by those who never "joined" the system went undetected. Although a number of EPA's criminal investigators now come to the Agency with substantial law enforcement experience from other federal agencies, and in recent years, the FBI has joined the fray as part of its overall crackdown on white collar crime, the present number of EPA special agents is inadequate to accomplish the task at hand. The lack of trained investigators has resulted in "burn-out" among those most equipped to do the job. As a result, the potential exists for a high rate of turnover among EPA investigators. The process of training new investigators on-the-job is costly and time-consuming.

The inadequate number of investigators has resulted in investigations and prosecutions based upon a reaction to violations after the harm is done. Although the statistics are impressive, the dearth of investigators has prevented EPA and

DOJ from proactively selecting cases based on reasoned, focused suspicion of wrongdoing. Consequently, EPA's limited resources are not currently as well directed as they could be. As EPA's enforcement program currently operates, the manner in which a case is handled, i.e., administratively or through civil or criminal enforcement, is left too much to happenstance. The way a case is handled depends on which bureaucrat's desk the case first arrived. Among other things, this is unfair to the regulated community. Without any notice as to how EPA will handle a particular violation, the regulated community has no guidance. This complicates and tends to diminish its self-policing activities -- just the opposite of the goal EPA should be achieving through criminal enforcement. Furthermore, the inconsistent application of penalties does not serve the criminal program well. Under the present "system," one company may be criminally indicted for violations while the same conduct by another company is handled as a minor administrative matter.

EPA has not yet created a screening system to determine which cases will be pursued criminally and which will be pursued administratively or civilly. A modified system currently under discussion at the Agency, which would screen only potential criminal cases, is wide of the mark and fraught with the potential for problems. The Justice Department tries

to provide some uniformity for EPA when cases are referred there, but undoubtedly cases fall through the cracks because so little is known about the actual nature of the violations and who committed them until the lengthy discovery or investigative process runs its course. Further, criminal investigators tend to uncover violations that do not turn up in the rarefied atmosphere of civil discovery.

A good centralized system, like [illegible] implemented by many states with active environmental criminal programs, gives top priority to criminal cases. All cases are screened first by prosecutors and criminal investigators trained to detect criminal violations. Cases they do not choose to pursue are left to be handled administratively or civilly. EPA presently lacks such a system because criminal cases have not been given the highest priority. Similarly, until now, EPA has lacked the investigative resources necessary to implement such a system. S. 2176 will go a long way toward achieving that goal, however.

By significantly increasing the number of criminal and civil investigators within EPA and providing additional support staff and funding, S. 2176 promotes the goal of full compliance with environmental laws. The bill also seeks to train these additional investigators by creating a new National Enforcement Training Institute within EPA's Office of Enforcement and Compliance Monitoring. The proposed program, which focuses on

training lawyers, inspectors, civil investigators, and technical experts in addition to criminal investigators, should supplement the existing Federal Law Enforcement Training Institute in Glynco, Georgia, which prepares criminal investigators for investigations of hazardous waste facilities and trains them to work in conjunction with technical and scientific experts.

The increase in investigative resources will enable EPA investigators to focus on particular industrial practices in specific geographical areas and to bring cases with a higher deterrent value than those presently being brought. For example, there is presently little verification of the accuracy of regulated entities' responses to EPA requests for data under Section 104 of Superfund. Because those responses influence EPA's cleanup strategy for hazardous waste sites, its identification of responsible parties and the extent of such parties' potential liability, there is a natural temptation to respond less than truthfully. Increasing the number of EPA investigators will enable the Agency to focus its criminal enforcement efforts in a manner designed to achieve full compliance.

3. Further Observations and Recommendations

The paramount policy of environmental enforcement laws is compliance, not litigation. Government alone does not have

the resources to prosecute every potential violation. Indeed, the growing number of environmental convictions and financial penalties is not a sign of success; to the contrary, some may consider it to be a measure of failure.

While directing increased resources to EPA is a beginning, the goal of full compliance will not be achieved by a one-sided effort on the part of enforcement authorities. Rather, full compliance can only be achieved through the concerted efforts of both the regulated community and government enforcement entities. To encourage the full participation of the regulated community in this process, Congress should also consider the creation of other programs designed to promote corporate self-policing and, therefore, compliance with the environmental laws -- one of the obvious objectives of criminal enforcement. One such program is a voluntary disclosure initiative. This is a novel concept in the environmental area but it has worked with some degree of success in other sectors. The purpose of such a program is to increase corporate self-policing by encouraging corporations to develop internal compliance programs. To a limited degree, EPA already encourages corporations to perform internal audits. Those practices should be modified to encourage an independent assessment of the potential for criminal liability. Once such an assessment is performed, however, corporations should have a place to disclose the information that the assessment brings to light.

Corporations which take steps to comply with the law, promptly and completely disclose misconduct and fully cooperate with regulatory and enforcement authorities should not be discouraged from participating in such a program by inflexible prosecutorial policies. Voluntary disclosure of wrongdoing is a factor which should be favorably considered by EPA and DOJ in deciding whether, and how, to charge a case. Conversely, a regulated entity's failure to have an internal compliance program (or its failure to follow the program it has) should also be relevant.

Congress should additionally consider the enactment of a limited, self-evaluative privilege which would protect the confidentiality of the results of self-critical compliance programs. Such a privilege should prevent the government from using the results of self-policing efforts as a sword against a company in a criminal prosecution, but should not allow the company to conceal potentially illegal acts. Compliance with environmental laws and rules would be substantially enhanced if regulated entities could conduct internal environmental audits of their facilities and compliance programs without the concern that information produced during the process might be used for punitive purposes. Government cannot be as effective in applying external coercion as a company's own management can be in reviewing its internal operations.

CONCLUSION

Congress is no doubt aware of the increasing public concern for the environment and the concomitant expectation that those who fail to obey environmental laws will be prosecuted. Congress has charged DOJ and EPA with enforcing a myriad of laws which are designed to protect the environment and the public's health and safety. S. 2176 goes a long way toward enhancing EPA's and DOJ's cooperative criminal enforcement efforts. The goal of such efforts should be full compliance, rather than simply increasing the statistics on criminal enforcement. Given the number of years those laws have been on the books, it is only fair to put those who are required to obey them on notice that their failure to comply will be treated severely, but fairly.

If you have any questions, I would be pleased to answer them.

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TESTIMONY OF THE

NATURAL RESOURCES DEFENSE COUNCIL

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ON S. 2176

THE POLLUTION PROSECUTION ACT OF 1990

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April 24, 1990

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Introduction

Mr. Chairman and Members of the Committee:

Good morning, and thank you for this opportunity to testify on, and to express our strong support for, the Pollution Prosecution Act of 1990.

I am Robert W. Adler, a Senior Attorney with the Natural Resources Defense Council, Inc. (NRDC). NRDC is a national environmental organization with more than 130,000 members and supporters nationwide who are concerned about proper compliance with the Nation's environmental laws. I am the Director of NRDC's Clean Water Program, which monitors compliance with the federal Clean Water Act and other laws designed to protect water quality. I am also involved in NRDC's work to protect the wildlife and wilderness resources of Alaska, and I have been involved in NRDC's response to the Exxon Valdez oil spill. While I have spent the past six years in the public interest sector, during the previous five years I worked as an environmental prosecutor (among other responsibilities) for the Pennsylvania Department of Environmental Resources.

We strongly support the Pollution Prosecution Act of 1990, and commend Senator Lieberman for sponsoring and Senators Lautenberg, Chafee, Durenberger, Jeffords and Wilson for cosponsoring this measure. While we support the concept of the bill and its provisions, we do not believe that these measures alone will induce an adequate overall EPA enforcement program. This testimony will discuss:

(1) the need for this legislation, as evidenced by specific examples of environmental compliance problems; and

(2) other needed improvements in EPA's enforcement efforts.

Why Improved EPA Enforcement Is Necessary

Over the past twenty years dozens of laws have been passed to protect environmental quality and human health from a wide range of environmental disturbances. These laws include civil and criminal enforcement tools designed to ensure compliance.

There is strong evidence to suggest, however, that even given the array of enforcement tools available to state and federal agencies, compliance with existing environmental laws is often poor. While major events such as Love Canal, Three Mile Island and the Exxon Valdez and Ashland oil spills capture headlines and public attention, scores of additional violations routinely threaten human health and the environment. A large number of individuals and corporations do act responsibly and comply with existing environmental laws and regulations; but many others do not. This inconsistent compliance not only jeopardizes health and the environment, but is unfair to responsible environmental actors, who may suffer competitive disadvantage at the hands of those who evade their legal duties.

Evidence of widespread noncompliance with environmental laws and regulations comes from many quarters, only a few of which are cited here:

* A recent report by the General Accounting Office[1] (GAO) found that at least 41% of industries who discharge toxic wastes into public sewer systems violate their discharge requirements. These releases cause water pollution, toxic air pollution, and threaten worker health and safety at sewage treatment plants.

* Another GAO report[2] found widespread noncompliance with laws and regulations designed to prevent inland oil spills. In four EPA regions visited by GAO, violations were found in between 41 to 94 percent of inspections. This noncompliance has led to 2,000 to 3,000 oil spills each year since 1982.

* A 1988 report by NRDC, Trustees for Alaska and the National Wildlife Federation[3] found thousands of violations of environmental laws and regulations by oil companies operating on the North Slope of Alaska. Violations involved oil spills, air and water pollution, hazardous waste releases, and other problems. This investigation led to the filing of a major citizen suit against ARCO for hundreds of violations of the Clean Water Act.

* A report by the National Wildlife Federation[4] (NWF) found rampant noncompliance with the Safe Drinking Water Act, the law designed to protect the American public from dangerous pollutants in public drinking water. NWF identified over 100,000 violations of the law year each year, including approximately 17,000 violations of health standards, affecting about 13 million people.

NRDC's Enforcement Project, which brings civil enforcement actions under the Clean Water Act, also finds thousands of violations of industrial discharge permits each year. These violations pollute our rivers, lakes and coastal waters with

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[1] Water Pollution: Improved Monitoring and Enforcement Needed for Toxic Pollutants Entering Sewers (General Accounting Office, April 1989) (GAO/RCED-89-101).

[2] Inland Oil Spills, Stronger Regulation and Enforcement Needed to Avoid Future Incidents (General Accounting Office, February 1989) (GAO/RCED-89-65).

[3] Speer and Libensen, Oil in the Arctic (1988).

[4] Danger on Tap: The Governments Failure to Enforce the Federal Safe Drinking Water Act (NWF 1988; Updated 1989).

toxic and other dangerous pollutants, contaminating seafood and drinking water, and causing other adverse effects.

In many cases, NRDC citizen suits successfully deter repeat violations. In some cases, however, intransigent polluters do not seem to respond to civil sanctions. For example:

* A leading national pharmaceutical company continues to dump dangerous organic chemicals into the Quinnipiac River in Maine despite four years of civil litigation by both the state and environmental groups.

* Despite a consent decree between environmental groups and a wool dyeing company, and the payment of $24,000 in civil penalties, the company has not stopped polluting. A second citizen suit has been brought to address these ongoing violations.

It is clear from this widespread noncompliance with the Nation's environmental laws that stricter enforcement is needed to deter this irresponsible conduct.

The Pollution Prosecution Act is a Step in the Right Direction

We agree with the specific measures proposed in the Pollution Prosecution Act to help improve EPA enforcement efforts. Clearly, a lack of adequate civil and criminal investigators has impaired EPA's efforts to detect and to prosecute environmental violations. For example, currently EPA has less than one criminal investigator per state -- a woefully inadequate commitment of resources to such a large and growing problem, particularly given the amount of work necessary to bring a single criminal case or a complex civil case to successful prosecution. NRDC does not know whether the increases in personnel specified in this bill will be sufficient to support an adequate overall EPA enforcement program. The proposed

increases, however, are certainly a major step in the right direction, and if used effectively, should provide a strong boost to environmental enforcement nationwide.

Finally, hiring additional enforcement personnel will not necessarily be effective in improving environmental enforcement unless both existing and new enforcement personnel are adequately trained. Training is needed in such matters as how to detect and document violations, how to ensure proper chain of custody of evidence, how to identify and use witnesses, and available inspection tools and procedures for documents and other evidence. The Pollution Prosecution Act addresses this need by creating a National Enforcement Training Institute. Moreover, by providing training resources to state and local, as well as federal personnel, the Institute will improve overall enforcement efforts and hopefully reduce the need for more federal enforcement in the future. In many cases state and local officials who spend more time with a particular facility are in a better position than EPA to take appropriate enforcement action.

Other Needed Improvements in EPA Enforcement

While we agree with the measures proposed in the Pollution Prosecution Act, we do not necessarily believe that they will be sufficient standing alone to promote an adequate overall EPA enforcement program. While we cannot address all possible EPA enforcement issues here, the following is an example of EPA

enforcement issues that should be addressed by EPA[5] and by this Committee in the future. Many of these problems affect the efficiency of EPA enforcement efforts, and therefore the need for increased enforcement personnel.

Existing EPA Enforcement Efforts Often Are Weak

Even given adequate resources, studies show that EPA enforcement efforts often are weak. For example, EPA's Inspector General's Office recently criticized EPA's water pollution enforcement efforts in Region IV and the Chesapeake Bay Region.[6] The Inspector General's report for Region IV concluded that EPA Region IV and the States of Georgia and Alabama were not effectively enforcing the NPDES program, because:

(1) they lacked adequate enforcement management systems;

(2) enforcement actions against chronic violators were not taken in a timely fashion, or escalated when appropriate;

(3) appropriate civil and administrative penalties were not used effectively; and

(4) as a result, compliance with Clean Water Act deadlines was poor.[7]

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[5] EPA is undergoing a comprehensive enforcement program review. We commend EPA for this effort, and hope that many of the issues outlined below will be addressed by this review.

[6] Review of Region IV's National Pollutant Discharge Elimination System Permit Enforcement Program (Audit Report E1HWD8-04-0207-9100462, September 7, 1989); Report of Audit on the Management of the Chesapeake Bay Program Point Source Pollution Program (Audit Report E1H98-03-0208-9100467, September 11, 1989).

[7] Region IV Audit Report, supra, at 2 - 5. Similarly, the Chesapeake Bay Audit found that EPA did not require states to apply proper management procedures, that states were reluctant to take appropriate enforcement actions, and that EPA did not take appropriate enforcement actions when states failed to do so.

A 1988 GAO Report found similar deficiencies in EPA's hazardous waste enforcement efforts. The report found that EPA enforcement actions were deficient in 80 out of 97 high priority cases (82%), and 37 out of 60 other cases (62%).[8]

These studies show that providing new personnel and training alone will not necessarily improve enforcement efforts unless the will to enforce is present. Ways must be found, through management incentives and proper program oversight, to ensure that EPA's regional enforcement personnel take their enforcement responsibilities seriously, and view enforcement as more than a "bean-counting" exercise. The appropriate measure of success should be based on compliance with properly-written permits -- not just the number of discrete enforcement actions taken, however effective or ineffective.

Improved Oversight of State Enforcement Efforts is Needed

One reason why increases are needed in federal enforcement personnel is the lack of adequate state enforcement programs. After all, Congress intended that implementation and enforcement of most of the Nation's environmental programs be delegated to the states wherever possible.

Yet information shows that EPA oversight of state enforcement programs often is extremely weak. For example, the Inspector General's reports on NPDES program enforcement in EPA Region IV and in the Chesapeake Bay recommended increased EPA

Chesapeake Bay Audit Report, supra, at 4 - 5.

[8] Hazardous Waste: Many Enforcement Actions Do Not Meet EPA Standards (GAO/RCED - 88-140, June 1988), at 8.

oversight of the NPDES enforcement programs in delegated states.[9] Similarly, the GAO report critiquing EPA and state hazardous waste enforcement found that EPA did not take enforcement actions where the states failed to do so, citing fears of impairing state/federal relations, resource constraints, and other problems.[10] In part, this inadequate oversight is caused by insufficient EPA program staffing. In other cases, political factors may cause EPA to ignore or downplay inadequate state enforcement, in particular, due to EPA's reluctance to take over the state program. But in the long run, inadequate state enforcement must be replaced by the expenditure of federal enforcement resources, or through duplicative state and federal enforcement actions against the same facility. It would be far more efficient to improve EPA's ability to oversee state enforcement efforts.

The Federal Government Waste Resources By Impairing Citizen Enforcement Efforts

It is ironic that, while additional environmental enforcement resources are being provided, existing resources are wasted by federal intervention in independent enforcement cases brought under the citizens suit provisions of the various environmental laws. In most cases, this intervention is designed solely to object to the use of civil penalties for local or regional pollution control efforts, and to divert these funds into the federal treasury, rather than to assist in the

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[9] Region IV Audit Report, supra, at 5; Chesapeake Bay Audit Report, supra, at 5.

[10] GAO Report 88-140, supra, at 8.

prosecution of the action itself. For example, the federal government recently opposed a proposed settlement of citizen suit claims against Unocal for pollution of San Francisco Bay, under which civil penalties would be used to restore the affected environment, study additional pollution effects, and improve state pollution emergency response efforts.[11]

Congress provided these remedies to encourage citizens to supplement federal and state enforcement efforts. Through the successful prosecution of these cases by NRDC and other groups around the country, the federal government saves considerable resources that otherwise would be needed to produce equivalent results. It is counterproductive for the federal government to discourage such citizen enforcement. In 1987 Congress amended the Clean Water Act to allow the Department of Justice to comment on proposed citizen suit settlements, to ensure that citizen enforcement produces the proper results, for example, that settlements do not relieve polluters of cleanup or corrective action duties.[12] But federal intervention for the sole purpose of diverting civil penalties from legitimate local and regional cleanup or restoration efforts into the general treasury does not serve this purpose, and may deter legitimate citizen enforcement.

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[11] Sierra Club, et al. v. Union Oil Co., Nos. C 84-3435 and C 86-6063 (N.D. Cal.). A letter objecting to the action signed by eight members of Congress from the San Francisco Bay area is attached.

[12] Of course, the federal government can intervene where necessary to protect legitimate federal interests, or bring its own enforcement case where appropriate. But the Senate Report on the Water Quality Act of 1987 struck a balance between protecting federal interests and unnecessarily obstructing legitimate citizens suits. S. Rep. 50, 99th Cong. 1st Sess. 28 (1985).

As shown above, this supplemental enforcement is a badly needed component of our overall environmental enforcement strategy.

Improved Compliance Monitoring is Needed

Additional enforcement resources are of limited value if EPA lacks the basic compliance information necessary to detect and to prosecute violations. In many cases, EPA and state compliance data derive almost entirely from self-reporting requirements. In some cases, these data are infrequent or otherwise inadequate.[13] EPA should examine closely its available inspection, monitoring and laboratory capabilities to determine what additional resources are needed to support an increased overall enforcement effort. Increased civil and criminal inspectors will be meaningless if these personnel lack the information they need to detect and prosecute violations.

Cross Program Enforcement Would Be More Efficient

EPA enforcement programs are divided narrowly by statute or environmental media. In many cases, EPA personnel are locked into even smaller cubby holes, assigned to the use of particular types of enforcement actions within a particular statutory program. As a result, performance is measured by the numbers of particular types of enforcement actions taken in a given region, rather than the number of facilities brought into compliance through the appropriate mix of enforcement strategies.[14]

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[13] For example, the GAO found inadequate monitoring to be a major cause of inadequate pretreatment program enforcement. GAO Report RCED-89-101, supra, at 39 - 40.

[14] This problem is exacerbated by the sometimes confusing division of responsibility for environmental litigation within the Department of Justice.

This division of labor, while perhaps making personnel proficient in their respective areas of responsibility, can result in considerable inefficiency. For example, RCRA inspectors may detect certain types of violations, but miss obvious related Clean Water Act problems that remain unaddressed or are addressed by a separate inspection at some later time. Or a particular pollution problem may be addressed through one enforcement mechanism because of the particular EPA personnel involved, when a different strategy or combination of strategies would be more effective and more efficient.

This problem could be corrected by cross-training EPA personnel in various related programs, or by coordinating site inspections to include a team of EPA personnel schooled in different areas. Following the inspection, inspectors from the various programs could compare notes and ensure that the most effective, coordinated enforcement strategy is chosen. Again, this result would be promoted by measuring performance by overall compliance rates, rather than numbers of particular enforcement actions taken.

Enforcement and Program Personnel Must Work Together Better

Because of the way EPA is organized, personnel who write regulations and permits often are isolated from enforcement personnel. This leads to a number of unfortunate results. Permits and regulations are not always written in a manner that maximizes enforcement or enforceability.[15] Conversely,

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[15] As just one example, whenever a discharger files an administrative appeal of an NPDES permit, the permit itself is effective (insulating the discharger from enforcement action), but the provisions challenged are stayed. Thus, during the

enforcement personnel are concerned only with compliance with the permits as written, with little or no feedback to permit-writers on ways to strengthen the permits (or to increase their enforceability).

Efforts to involve enforcement personnel at both the regulatory and permitting stages will increase both enforcement efficiency and effectiveness. For example, a recent GAO report found that EPA's new sewage sludge management program may be jeopardized unless it coordinates an effective enforcement program with the regulatory program.[16] Such coordination should occur at the outset, not after the regulations and permits are already written.

EPA Should Be Given More Independent Enforcement Authority

Currently, all EPA judicial enforcement must go through DOJ, regardless of the size and complexity of the case. This requirement has a number of adverse effects. It causes duplication of efforts between EPA and DOJ, increasing the number of federal personnel needed to maintain a given level of enforcement effort. It causes EPA to focus largely on major enforcement actions that warrant referral to DOJ, thus ignoring smaller violations until they blossom into more serious problems. And it keeps EPA regional attorneys who are responsible for

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lengthy administrative proceeding, enforcement is impossible and deadlines can be missed.

[16] Water Pollution: Serious Problems Confront Emerging Municipal Sludge Management Program (GAO/RCED-90-57, March 1990), at 28 - 32. GAO based this conclusion on its evaluations of EPA's NPDES, pretreatment and other programs. Id. at 28.

overall enforcement programs at a distance from actual enforcement actions.

This problem could be cured by giving EPA direct enforcement responsibility for certain types of judicial enforcement actions. By reducing duplication of effort and avoiding DOJ referral procedures, EPA could take more enforcement actions when violations first occur. This, in turn, will help to prevent violations from recurring or deteriorating into more serious problems. Where violations persist, enforcement activity can accelerate, and DOJ can be brought in only for the most egregious violations that require more complex enforcement actions.

Criminal Sanctions Should be Expanded

Criminal penalties in various environmental laws are inconsistent, and in many cases, inadequate. For this reason, NRDC has supported the Environmental Crimes Act (H.R. 3641), introduced in the House of Representatives by Congressmen Schumer and Gekas.[17] We urge members of this Committee to support similar legislation when it is introduced in the Senate, in order to increase the deterrent and remedial effect of criminal prosecutions of environmental violations.

CONCLUSION

We strongly support the Pollution Prosecution Act of 1990, and urge this Committee to proceed quickly to recommend adoption of this measure. Thank you very much for this opportunity to

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[17] See Testimony of the Natural Resources Defense Council, et al., on H.R. 3641, The Environmental Crimes Act of 1989 (December 12, 1989).

testify on this important legislation. I would be happy to answer any questions the Subcommittee may have.

Congress of the United States
House of Representatives
Washington, DC 20515

April 12, 1990

The Honorable Richard L. Thornburgh
Attorney General
U.S. Department of Justice
10th and Constitution, N.W.
Washington, D.C. 20530

Dear Mr. Attorney General:

We are writing to express our very serious concerns about the Department of Justice's opposition to the proposed settlement of claims against Unocal for pollution of San Francisco Bay by the Rodeo refinery (Sierra Club, et al. v. Union Oil Co., Nos. C 84-3435 and C 86-6063, pending before the U.S. District Court of the Northern District of California). On March 12, 1990, after a complex settlement had been reached by Unocal and Bay Area environmental groups, the Department's Land and Natural Resources Division intervened and asked that all penalties received in the Unocal case be diverted to the U.S. Treasury, rather than be used for restoration and enhancement of San Francisco Bay, as proposed in the settlement.

In the strongest possible terms, we urge you to reconsider and withdraw the Department of Justice's opposition to the proposed Unocal settlement.

As Members of Congress from the San Francisco Bay area, curbing pollution and enhancing the quality of our environment has long been one of our most important legislative priorities. As we understand its terms, the proposed Unocal settlement is consistent with our goals to rehabilitate the Bay and to prevent future pollution.

At $5.5 million, the Unocal pollution penalties would be the largest to date under the Clean Water Act's citizen suit provision and would serve as a significant deterrent to future polluters. Moreover, the settlement monies would be used to restore Bay area natural resources by means of wetlands acquisition and rehabilitation by the Trust for Public Land ($2.72 million), studies of deep ocean disposal of dredge spoils under the direction of EPA ($1.0 million), emergency pollution response by the State of California ($0.5 million), and reimbursement of litigation expenses ($1.3 million).

It is especially disturbing to us that the Department of Justice appears to covet the rewards from other people's labor in the Unocal case. Six years ago, the Sierra Club Legal Defense Fund began legal action because the Federal Government had failed to address Unocal's pollution problems. The Department of Justice has not intervened in the case nor contributed any assistance to the environmental community's lengthy and expensive efforts to insist that Unocal curb its refinery pollution.

Under 1987 amendments to the Clean Water Act, Justice is entitled to review and comment on proposed citizen suit settlements. However, Congress did not intend that "review and comment" by Justice be bootstrapped into a "Treasury-always-gets-the-money" mandate. Instead, the legislative history of the 1987 amendments indicates that Congress both reaffirmed the role of citizen suits as a valuable enforcement tool, and specifically encouraged the practice of earmarking settlement funds for environmental protection projects which further the goals of the Clean Water Act.

We request that you reconsider not only the Justice Department's position on the Unocal case, but also the Department's general policy of diverting settlement funds away from local environmental restoration projects.

Sincerely yours,

Don Edwards
DON EDWARDS, M.C.

George Miller
GEORGE MILLER, M.C.

Ronald V. Dellums
RONALD V. DELLUMS, M.C.

Tom Lantos
TOM LANTOS, M.C.

Barbara Boxer
BARBARA BOXER, M.C.

Nancy Pelosi
NANCY PELOSI, M.C.

Pete Stark
PETE STARK, M.C.

Vic Fazio
VIC FAZIO, M.C.

cc: Honorable Samuel Conti
U.S. District Judge

JOSEPH I. LIEBERMAN
CONNECTICUT

COMMITTEES
ENVIRONMENT AND PUBLIC WORKS
GOVERNMENTAL AFFAIRS
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May 9, 1990

Mr. Robert Adler
Natural Resources Defense Council
1350 New York Avenue, N. W., Suite 300
Washington, D. C. 20005

Dear Mr. Adler:

I wanted to thank you for taking the time to testify at the Environment and Public Works Committee hearing on S. 2176. Your insights and thoughtful comments on the enforcement process were extremely helpful and I hope you will continue to provide the Committee with your views on these important issues.

Enclosed are some questions for the record which I did not have an opportunity to ask at the hearing. I look forward to a continuing dialogue on these issues.

Best regards.

Sincerely,

Joseph I. Lieberman

Enclosure
JIL:jar

PANEL II

Jud Starr, Esq.
Venable, Baetjer, Howard & Civiletti

Robert Adler
NRDC

Questions

1. TYPE OF CASES

Where are we moving now in the criminal enforcement of environmental laws--what type of cases do you recommend should be pursued on the federal level by EPA? For example, do you agree with EPA's new emphasis on targeting repeat civil offenders or industries, , multi-media and geographic approaches ?

Will the provisions of this legislation assist EPA in developing an approach to crimimal enforcement which is "proactive" rather than "reactive"?

2. What guidlines should EPA use in determining what route to take in cases which might be either pursued criminally or civilly?

2. IMPACT OF CRIMINAL ENFORCEMENT (To Judd Starr)

Based on your more recent experience as a criminal defense lawyer, what affect, if any, has the increased emphasis on criminal enforcement had within the corporate structure?

3. ABUSE OF DISCRETION (To:Judd Starr)

During the debate on the Clean Air Act, where the Senate ultimately determined that the criminal penalties should be strengthened in line with our other environmental laws, we often heard the concern that prosecutors would use these new tools to go after the low-level plant manager who had mistakenly violated failed to file some unimportant document. As a former prosecutor, Mr. Starr, I know you are aware of the type of evidence needed before an indictment will issue. Don't the checks and balances in the criminal system really prevent this type of abuse?

4. ROLE OF AUDITS

I have become increasingly aware of the importance of audits in achieving compliance with our environmental laws. Mr. Starr has advocated a volunary disclosure program in which companies which discover violations of the law are provided with some type of incentive-- the voluntary disclosure is one of a number of factors which might be considered favorably by EPA and DOJ in deciding whether or not to charge a case.

Others have advocated that environmental audits be a mandatory requirement of sentencing where corporations are convicted of environmental crimes. Some have gone further and urged Congress to consider mandatory compliance audits.

What are your views on mandatory environmental audits - i.e. a corporation's self audit by a trained, licensed group of auditors would in some sense take the place of an inspection by the Agency?

Natural Resources
Defense Council

1350 New York Ave., N.W.
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202 783-7800
Fax 202 783-5917

June 5, 1990

The Honorable Joseph I. Lieberman
United States Senate
SH-502 Hart Senate Office Building
Washington, D.C. 20510-0703

Dear Senator Lieberman:

Thank you again for the opportunity to testify in support of S. 2176. This legislation will be extremely helpful in bolstering the effectiveness of EPA's criminal and civil enforcement efforts, and in helping to ensure that environmental enforcement is improved at all levels of government.

Attached are my responses to additional questions submitted for the record.

NRDC appreciates your leadership on this important issue. I look forward to working with you and your staff to promote further improvements in environmental enforcement efforts.

Very truly yours,

Robert W. Adler
Senior Attorney

Enclosure

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Responses to Additional Questions on S. 2126

Robert W. Adler
Natural Resources Defense Council, Inc.

1. Type of Cases

By providing EPA with additional enforcement resources, and by providing additional training to environmental enforcement officials at all levels of government, S. 2126 will promote proactive, as opposed to purely reactive, environmental enforcement efforts. While it is important that criminal and civil enforcement actions be taken in response to examples of environmental noncompliance, in the long-term EPA's overall enforcement program should be designed to promote environmental compliance. This goal can be met in two ways.

First, EPA should initiate some form of enforcement action as soon as possible after any evidence of noncompliance is detected. Rapid low-level responses to initial signs of violation, and early efforts to promote compliance, may prevent violations from getting out of hand, and may obviate the need for more intensive enforcement action. While the level of action depends on the circumstances (type of violation, degree of environmental harm, nature of conduct, etc.), in general, enforcement actions should be escalated as conduct becomes more severe and when violations are repeated notwithstanding low-level enforcement.

Second, EPA should take aggressive civil and criminal enforcement action against repeat offenders, or particularly egregious offenders. Maximum penalties should be sought in such cases (including both fines and, where appropriate, incarceration), and the results of such prosecutions should be publicized widely to maximize their deterrent effect. This is consistent with the concept of using enforcement to prevent, rather than simply to react to, environmental noncompliance.

Criminal action is particularly appropriate where conduct is willful, where it is negligent and causes or threatens severe human health or environmental effects, or for chronic violators. Criminal action should also be taken where it will have important deterrent or punitive value, and where it is believed that civil action alone will not achieve future compliance.

4. Role of Audits

NRDC has strongly supported the environmental audit provision of the Environmental Crimes Act introduced by Representatives Schumer and Gekas. This provision would require mandatory environmental audits as a condition of probation for companies convicted of environmental crimes.

Environmental audits should become a routine element of corporate management, and are being implemented voluntarily by many responsible companies. For this reason, we would support legislation to promote or to require routine environmental audits by all businesses that conduct environmentally-threatening activities. Audits are particularly appropriate, however, for past violators who have demonstrated an inability to meet applicable environmental requirements. Audits can serve to educate corporate officials who have not paid sufficient attention or devoted sufficient resources to environmental compliance, and can prevent future problems.

In order to be effective, it is essential that environmental audits be conducted by independent, objective environmental professionals. It may be useful for EPA to certify a list of qualified, independent auditors, and to design a system by which auditors can be selected objectively, so that audits are not compromised by the auditor's desire to "retain a client." In the case of court-ordered audits, auditors should be selected by, and accountable to the court, rather than the violator.

STATEMENT OF
HUBERT HUMPHREY III
ATTORNEY GENERAL
STATE OF MINNESOTA

I appreciate the opportunity to express my views on S. 2176, the Pollution Prosecution Act of 1990. I am not at all surprised that this bill is co-sponsored by two former Attorneys General, Senator Lieberman of Connecticut and Senator Jeffers of Vermont. Colleagues understand the value of strong enforcement in protecting our environment. The best environmental law is only a hollow shell unless those regulated by the law know that the law will be fairly and effectively enforced.

Minnesota, like most states, is working hard to develop new enforcement techniques to address new environmental problems and to cope with the rapid expansion in the number of regulated facilities. My office has been working with the Minnesota Pollution Control Agency and the Minnesota Department of Agriculture to introduce new civil enforcement strategies. We have also significantly expanded our environmental crimes program. In December of 1989, I created, in cooperation with the Pollution Control Agency, an Environmental Crimes Investigation Team to more effectively investigate and prosecute criminal violations of our environmental laws.

In the process of instituting these new programs, we have clearly identified the importance of federal investigative assistance, particularly in criminal cases. We have also found that training and technical assistance programs are critical to the successful implementation of new enforcement strategies. S. 2176 would be of great value to the states in both of these areas.

While most of the legal authority for strong enforcement is in place, the infrastructure to effectively use this authority has not been adequately developed. To enforce these complex laws, we must have the right type of people within state and federal enforcement programs, they must be adequately trained and they must learn how to work together.

The bill is essential in building this needed federal role by increasing the number of federal criminal investigators. The criminal investigators now working for U.S. EPA have done an exceptional job considering their small numbers. However, given the heavy workload of the limited number of EPA criminal investigators, Minnesota has little access to federal investigative assistance. Based on our experience in criminal enforcement over the past three years, there have been cases involving interstate issues or where federal law was clearly superior in which the ready availability of an EPA investigator to work with state investigators would have been very beneficial. Further, Minnesota has found the working relationship between the EPA criminal investigators and the state to be very cooperative. In light of these circumstances, I support the bill's proposal to expand the number of EPA criminal investigators.

Environmental enforcement is a specialized and technical area. It requires extensive knowledge of complex regulatory programs. The existing and emerging enforcement training programs have been a key element in enforcement training for several years, and, developed by the National Association of Attorneys General, the regional environmental enforcement organizations such as the Midwest Environmental Enforcement Association, and other state and federal organizations, have helped to produce better enforcement programs. EPA grants have been an important source of support for many of these state and regional training programs.

Still, much more could be done. The proposed National Training Institute could provide an excellent focal point for coordinating training programs that are delivered at the state, regional and national levels. Since most environmental enforcement occurs at the state level, and enforcement is becoming an increasing function of local government, especially in the criminal area, I am pleased that the Institute focuses on all three levels of government. To strengthen the state and local involvement in the work of the Institute, you may want to consider creating a board of directors for the Institute that includes state and local representatives.

The funding aspects of the bill should also be helpful by providing stable and secure funding, especially for the Training Institute. It is appropriate that some of the dollars recovered in enforcement actions be returned to that effort.

In conclusion, I believe S. 2176 will significantly enhance environmental enforcement and contribute to a cleaner, safer environment.

AMERICAN PUBLIC WORKS ASSOCIATION

1301 Pennsylvania Avenue, N.W., Suite 501, Washington, DC 20004 (202) 393-2792, FAX (202) 737-9153

STATEMENT FOR THE RECORD
by Donald Berman
AMERICAN PUBLIC WORKS ASSOCIATION
regarding
A FEASIBILITY STUDY ON AN UMBRELLA RESEARCH ARM
SUPPORTING RESEARCH ON ENVIRONMENTAL ISSUES
given to the
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
April 24, 1990

This Statement for the Record is being submitted by Donald Berman, Director, Division of Waste Management, County of Allegheny, Pennsylvania, and President of the American Public Works Association's (APWA) Institute for Water Resources. It is in Mr. Berman's capacity as president of one of APWA's institutes that this statement is being provided today.

The American Public Works Association is a non-profit educational and professional association that is an outgrowth of the American Society of Municipal Engineers which was established in 1894. APWA is headquartered in Chicago, Illinois, with a governmental affairs office in Washington, D.C. The purpose of the Association is to assist public works agencies in fulfilling their responsibilities and to enable people involved in this field to work together to improve their professional practice, thereby serving the best interests of the tax-paying public. Membership is comprised principally of local officials, but also includes strong representation from the federal and state levels of government. Educators and representatives

of the private sector are also counted among our over 28,000 members.

To foster professional development among public works personnel, APWA has established a number of institutes which focus on the following fields of activities: administrative management, buildings and grounds, equipment services, municipal engineering, transportation, solid wastes and water resources. The institutes exist to promote high standards of competence in each of these areas. They conduct surveys and studies, and collaborate with APWA's Education and Research Foundations in presenting training programs and conducting research projects.

APWA defines public works very broadly as, "the physical structures and facilities developed or acquired by public agencies to house governmental functions and provide water, waste disposal, power, transportation, and similar services to facilitate the achievement of common social and economic objectives." Both the membership and the interests of APWA reflect the breadth of that definition. The training and focus of our members, and hence our Association, are in the technical disciplines underlying the various aspects of public works engineering and administration.

The APWA Institute for Water Resources and the full membership of APWA have long been dedicated to the precept that adequate quantities of clean water are vital to the

health and well being of this Nation. APWA is pledged to the wise use of our water resources through leadership in the design, construction and operation of water resource facilities.

Unfortunately, the development of standards and the means to mitigate against the adverse factors that contaminate our water supplies and the rest of the environment have not kept pace with the ability to detect contaminants. In addition, the necessary research to determine at what levels these contaminants become dangerous is often lacking also. Moreover, as industrial technology continues to develop, new hazardous materials may appear as by-products. Although this problem is becoming increasing complex, in recent years the federal government has decreased the funds available for research and demonstration projects to make available cost-effective technology available for those persons who must handle, treat, process and dispose of these hazardous materials.

Because of this dichotomy of increasing research needs and declining federal support, APWA in August 1983, convened a workshop on Environmental Research and Development at the Airlie House, Airlie, Virginia. The purpose of this workshop was to examine the concept that the private sector would be able and willing to meet the environmental research and demonstration needs. Unfortunately, the workshop found

few areas in which the private sector could be expected, on its own, to conduct the necessary environmental research.

For this reason, the full membership of APWA passed a resolution on September 18, 1984 at its 90th annual meeting, urging the Congress to increase funding for environmental research. This research is intended to develop the environmental standards and performance standards for control technology necessary for cost-effective treatment and handling of dangerous substances found in water, wastewater and solid and hazardous wastes.

In light of our workshop at Airlie House, I am pleased to learn that S2371 directs the National Academy of Sciences to conduct a study of the feasibility of an umbrella research arm to support research on a variety of environmental issues. The American Public Works Association wholeheartedly supports such a proposal. Our September 18, 1984 resolution further requested the Congress to fund a feasibility study for establishing an environmental technology center as a quasi-governmental institution which would be responsive to the environmental research needs of local government and other users of pollution control technology. The revision of this resolution into our current policy statement on this matter further recommends that such a study be performed by the National Academy of Sciences.

A copy of APWA's original resolution and our current policy statement is being provided herewith for the record.

Extract from APWA's "Resolutions and Policy Statements 1984-1985:"

resolution 2

environmental research and development

whereas many governmental agencies and private industries are involved in a wide variety of activities such as solid waste disposal, and water and wastewater treatment which are hazardous or are potentially hazardous to the environment and human health, and

whereas development of standards and means to mitigate the effects of adverse environmental factors has not kept pace with detection ability or the fact that industrial technology development often results in new hazardous materials, and

whereas in recent years the federal government has decreased the funds available for research and demonstration projects which would make available to those who must treat or process wastes for ultimate disposal cost-effective methods for handling these hazards, and

whereas the concept that the private sector would be able and willing to meet these environmental research and demonstration needs was thoroughly explored at a national workshop on environmental research and development in August 1983, at Airlie House in Warrenton, Virginia, and

whereas the workshop group found few areas in which the private sector could, on its own, be expected to initiate and conduct the necessary environmental research, and found that effective alternatives are critically needed, now therefore be it

resolved that the membership of the American Public Works Association assembled in Philadelphia, Pennsylvania, for its 90th annual meeting on September 18, 1984, requests that the Congress of the United States increase funding for research to develop the environmental standards and performance standards for control technology necessary for cost-effective treatment and handling of dangerous substances found in water, wastewater, and solid and hazardous wastes, and be it further

resolved that Congress reauthorize and fund a demonstration program by which new treatment technologies may be evaluated, and that Congress provide greater opportunities for cooperative studies by industry and all levels of government to accomplish these research objectives, and be it further

resolution 2 (continued)

resolved that Congress is requested to fund a feasibility study for establishing an environmental technology center as a quasi-governmental institution (perhaps modeled after the Water Research Centre of Great Britain), which would in particular be responsive to the environmental research needs of local government and other users of pollution control technology, and be it further

resolved that any feasibility study should take into account existing institutional arrangements, such as those involving the National Research Council, which could facilitate development of the proposed center, and be it further

resolved that members of the American Public Works Association request that the U.S. Congress give full consideration to the other recommendations of the August 1983 Airlie House Workshop on Environmental Research and Development which included

- allowing tax incentives, and relief from governmental low bid selection requirements, for industries that develop new cost-effective technologies
- providing for reliability and performance testing of equipment
- strengthening research and development efforts in areas in which the private sector will not act voluntarily
- assisting industry in identifying the potential markets for new technology, and
- implementing a program to assist public agencies with problems which impact on only a few communities, and be it further

resolved that copies of this resolution be sent to appropriate members of the House of Representatives and the Senate of the United States, the U.S. Environmental Protection Agency, the National Science Foundation, the President's Office of Science and Technology, the Congressional Office of Technology Assessment, the member laboratories of the Federal Laboratory Consortium, the National Research Council, and to the presidents and chief executive officers of the other major public-interest associations whose membership was represented at the August 1983 Airlie House Workshop.

Extract from APWA's "Resolutions and Policy Statements 1989-1990:

4.24 ENVIRONMENTAL RESEARCH NEEDS — Support for myriad environmental research that is needed is impeded by the fact that environmental management responsibilities are fragmented among three levels of government and the private sector and no organization has the responsibility to coordinate and provide such support. However, there are numerous examples of institutions created to meet the needs of specific areas of public works infrastructure concern such as the Trantsportation Research Board and the Building Research Board of the National Research Council in the United States, the Centre for Inland Waters in Canada, and the Water Research Centre of Great Britain. Governmental agencies at all levels must continue to fund the construction, operation and maintenance of major facilities to mitigate the environmental effects of pollutants and the cost of such programs can only be stabilized by conduct of research and demonstrations on a wide variety of initiatives. **The American Public Works Association urges the Congress of the United States to authorize and fund the National Academy of Sciences (NAS) to conduct a comprehensive study to evaluate the adequacy of current environmental research and development programs being conducted to provide affordable technology to comply with the increasingly restrictive laws and regulations being adopted to protect this and future generations. APWA urges that the NAS study include an assessment of the adequacy of the scientific, health-effect research being conducted and used as a basis for establishing standards which have a negative economic impact upon public agencies as well as private institutions. APWA further urges that the NAS study also explore the feasibility of expanding the environmental research program within the National Research Council with proper funding to provide authoritative information to policy-making officials on environmental issues and to more effectively respond to the environmental research needs of state and local governments.** (1987 — Re: 4.23)

Mr. Chairman, members of the committee, the American Public Works Association appreciates the opportunity to provide this Statement for the Record. We stand ready to assist in any way possible.

BOSTON COLLEGE
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DEPARTMENT OF BIOLOGY
(617) 552-3540

The Honorable Quentin N. Burdick
Senator from North Dakota
c/o Stephanie Clough
508 Hart Building
United States Senate
Washington D.C. 20510

Reference:
Hearing on S. 2371

April 19, 1990

Dear Senator Burdick:

I recently obtained the US patent rights to a naturally occurring polymeric substance which I can prepare in pure form. The novel form for which I have the patent rights allows ready transformation into useful derivatives (see below). The material in question, which is termed chitin, is the animal analogue of plant cellulose but has chemical and structural properties that allow very many applications for which cellulose is not suitable. Annual biomass formation of chitin is estimated at 100 billion tons; shellfish waste is a very good though not the only source.

To obtain the patent, I took out a mortgage on my house (which is now spent); patent application filings in Japan and Europe are current but will very soon need infusion of funds which I cannot personally afford. Among proven applications are the following:

total removal of toxic heavy metal ions from waste streams proceeding from industry, mine tailings, etc.;

removal of PCB's;

manufacture of high tensile strength plastic that is totally biodegradable upon discard, by microorganisms already present in soils and sediments;

that I had just been declared "peripheral" and that I was not getting the remaining two years of funding; this was eventually reversed but all further applications were "disapproved". Finally, in 1984, I received a letter over the signature of Deputy Director David Rawls stating that chitin work was now unfundable no matter what I came up with by way of applications. At the FASEB Meeting in Washington earlier this month, I visited the NIEHS booth and presented NIEHS representatives with the fact that I now have the patent, that detoxification is a fact, and that an easily obtained chitin derivative is used by law in Japan for this purpose. I again urged them to reconsider funding me. The explanation for continued non-funding which I was given on or about April 3 of this year, and which I am bound to say I found unsatisfactory, was that their mission is to fund research into how toxics kill you, that I obstinately persist in wishing to detoxify the environment, and that they are therefore legally disabled from considering a grant application from me---unless, of course, I want to change gears and switch to toxicology.

My work also opens a brand-new theoretical field in chitin research. The structure is not well understood; in particular, species differences have not been capable of exploration because all other isolation methods but mine destroy or obliterate the native fine structure. Further, valid characterizations of the numerous enzymes involved in cycling this major component of the biosphere have not been possible until the advent of my now patented version of chitin, and such enzymes are involved in everything from chitin breakdown in the environment to molting of insects and crustaceans to hatching of parasitic nematodes to nutrition of marine mammals, reptiles, and birds, to plant defenses against fungal attack, and to growth of fungi that give rise to major nocosomial infections like candidiasis. This, it turns out, disables the General Medical Institute from funding me because I might accidentally cure a disease and they are not supposed to fund that!

I realize that you have little but my word for the assertion that everything I have said is so. However, I contributed a chapter, Protecting Crops and Wildlife with Chitin and Chitosan, to the ACS Symposium Series #380: Biologically Active Natural Products (and their) Potential Use in Agriculture. This volume appeared late in the fall of 1989. Very recently, the editor, Horace G. Cutler of the ARS in Athens, Georgia, sent me a photocopy of a review that appeared in the IPM (=Integrated Pest Management) Practitioner, and I enclose a copy. I also enclose my Curriculum Vitae.

production of light-weight, non-acidic paper (and, I think, reclamation of brittle acid-damaged paper in a manner that simultaneously neutralizes the acid that is present);

manufacture of "black mulch" that will biodegrade during winter months, inject nitrogen into the soil as it decays, and act as an inhibitor for parasitic nematodes;

a long list of important biomedical, cosmetic, and veterinary applications;

manufacture of membranes suitable for reverse osmosis (i.e. desalinization of water), for segregation of alcohol from dilute alcohol:water mixtures, for containing oil while allowing passage of water and gases;

etc. etc. etc.

With all this and more to offer, I have for the past ten years been totally unsuccessful in my attempts to obtain research and/or development funding for my work. I have applied to every federal agency imaginable, including though not limited to, Sea Grants, Saltonstall-Kennedy, EPA, USDA, NSF, ONR, various NIH Institutes, the Preservation Office of the Library of Congress, the National Archives, and NEH. I have tried the State of Massachusetts, the fishing industry, other types of private industry, and venture capital. Most of the entities I have approached have been ready to explain exactly why I just miss being fundable, but the invariant feature has been that I am unfundable. It should be of interest that the Japanese have built up a flourishing industry on chitin and have lavished money as well as industrial and university research capacity on this; in consequence, almost all of the US chitin patents given over the past five years have originated in Japan. The Japanese are prepared to fly me over there to pick my brains, but that is all from that quarter.

NIEHS deserves particular mention in this context. I had one of the earliest grants given by this Institute (ES00650). The title of the grant was Biochemistry of Insect Cuticle; under this heading, I was investigating enzymatic processes involved in insect molting with an eye towards developing environmentally benign and specifically targeted insecticides for agricultural pests and disease vectors. In early versions of the original application, which were written more than twenty years ago, I had foreseen and mentioned possible eventual development of biodegradable plastic from chitin, but I was asked to remove any mention of this possibility in rewritten versions on the grounds that it made everybody concerned look ridiculous. In early 1981, midway through a five-year non-competing renewal, I had a letter from the Institute informing me

I have made this deposition in order to contribute constructively to the ongoing debate on funding environmental and indeed other fundamental (biological) research. Science, unfettered, seeks explanations for observed phenomena, and the fallout often, though not always immediately, is sufficient understanding to cure or ameliorate ills of various kinds. Moreover, science, unfettered, is self-regulating: If funding is awarded on the basis of sound science rather than on the basis of non-scientific criteria such as having the biggest atom smasher, or avoiding "duplication", or simply because a field is fashionable, then no error, intentional or otherwise, is long perpetuated because others will try to repeat the experiments but will not get the same results. Thus science progresses without any need for fraud investigations and other silly measures which waste time and precious resources that would be much better spent in awarding more individual research grants.

Thank you for the opportunity for making my views known. I should be happy at any time to contribute further to this important debate.

Respectfully yours

Maria L Bade

Maria L. Bade, Ph.D.
Department of Biology
Boston College
April 19, 1990

Testimony of
Dr. Stephen P. Hubbell §
Department of Biology, Princeton University, Princeton NJ 08544

Before the Committee on
Environment and Public Works

on

Senator Bradley's Bill S. 2371
"Feasibility Study of the National Institutes for the Environment"

Tuesday, April 24, 1990

§ Dr. Hubbell (Ph.D, UC Berkeley, 1969) is Professor of Biology at Princeton University and co-chairman of the Committee for the National Institutes for the Environment, a non-profit organization of university scientists, industry leaders, policy planners, and representatives of environmental groups, concerned about the need for a more effective U.S. response to national and global environmental problems.

As co-chairman of the Committee for the National Institutes for the Environment, I welcome the opportunity to give testimony on behalf of Senator Bradley's bill for a feasibility study of the National Institutes for the Environment. This nation must start treating the health of the national and global environment with the same seriousness that it treats the health of its citizens, and the NIE would be a large step in the right direction.

I have two brief comments to make in my testimony. First, the National Academy of Sciences (NAS) is the appropriate independent body to conduct this feasibility study. This kind of review is the major reason why the NAS and National Research Council exists--to provide the Congress with expert, independent scientific advice on the scientific and research needs of the nation. The NAS will be able to inform Congress about whether the need for the NIE is genuine and pressing to meet the environmental research and scientific manpower requirements of the nation.

Second, I believe that the NIE should be housed in the new Department of Environmental Protection. However, I support this idea only if independent, extramural research is given a much higher priority within the EPA than it has had in the past. The model of the National Institutes of Health is instructive. Although it is housed within Health and Human Services, the NIH has considerable fiscal and complete scientific autonomy to determine its research directions. This is as it should be, and the productivity of the NIH in scientific and medical research and manpower over the past 40 years is powerful testimony to the fact that this formula works well.

We are not opposed to strengthening the research capabilities of other federal agencies that conduct environmental research, and also the National Science Foundation, but we argue that the the NIE is needed to support extramural training and research in the environmental sciences, especially fundamental and applied research aimed at urgent national and global environmental problems. The nation does not yet have adequate funding and manpower to address these problems. The nation spends 22 times as much on solving problems of human health than on all environmental problems combined. The NIE would begin to redress this imbalance.

In order to give extramural research higher priority and visibility within the new Department of Environmental Protection, we propose that there be created a new Undersecretary for Science, whose principal job would be to shepherd the new NIE agency. Under Senator Glenn's present bill, there are 9 undersecretaries for regulation and cleanup, and only one for Research and

Development. This balance does not inspire confidence that extramural research and training will get the attention it deserves in the new department. We propose that the Undersecretary for Science have two deputies beneath him, one for intramural research and one for extramural research.

I conclude by saying that the National Institute for the Environment is an idea whose time has come. Without prejudging the outcome of the proposed feasibility study, I merely report to you today that there is a remarkable national groundswell of opinion among the scientific community, among environmental groups, and industrial leaders that the NIE concept is fundamentally sound and important for the nation's future. As we move into the post-Cold War era, there is a growing sense that the national security is threatened perhaps as much or more by massive global environmental deterioration than by bombs and missiles. The nation needs far a better understanding of the global environmental interdependence of ecological systems that are of great importance to the health and continued welfare of this nation and all of mankind. We are woefully ignorant of many of the critical linkages in this global ecological chain. The National Institutes for the Environment would provide the university-based research and train the environmental scientists the nation needs to meet this challenge.

The NIE would conduct research in order to develop a broad and fundamental scientific understanding of the environment and of major environmental problems. The NIE would also focus on strategic planning to anticipate future problems. The NIE would provide a new and better way to assign environmental priorities, focus research, develop policy and educate the public on environmental issues of great significance to human welfare. The NIE would tackle complex environmental problems by assigning multidisciplinary research task forces on them. It would connect research to action via timely feedback between science, management, and policy. The NIE would be directed by an active governing board composed of eminent scientists, managers, environmentalists, and policy makers, who would work together to set the best national environmental strategies for the 1990's and beyond. In these ways, the NIE could provide much needed leadership and coherence to the diverse environmental efforts of the Federal government, and foster a new spirit of partnership, ending the current climate of confrontation and suspicion, among all the stakeholders in the environment.

Our goal is to create a new kind of forum for environmental scientists, managers, and policy makers to work together toward more effective national strategies for solving major environmental problems. We need a new spirit of partnership among all the stakeholders in the environment--government agencies, academic institutions, environmental organizations, and industry--to forge a national consensus on the best environmental policy for the 1990's and beyond.

National and global environmental change will be dominant issues that shape the economic and geopolitical agendas of the next century. The National Institutes for the Environment will help to guide the nation and the world to a more secure and sustainable relationship between humanity and the global environment. By creating the NIE, the United States will assume a global leadership role on the environment. A commitment to the NIE would be a legacy for the twenty-first century of which the nation can be proud and for which the community of nations would be grateful.

On behalf of my colleagues on the Committee for the National Institutes for the Environment, thank you for this opportunity to testify in support of S. 2371.

INTERNATIONAL UNION
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AND NATURAL RESOURCES

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April 19, 1990

Stephanie Clough
Committee on Environment and Public Works
508 Hart Office Building
United States Senate
Washington DC 20510

Dear Ms. Clough

On behalf of IUCN-US, we wish to enter the following into testimony for your hearing on S-2371 on April 24th. If you feel that it would be appropriate for IUCN-US to present oral testimony, please advise me. We would be pleased to do so. Otherwise, I submit the following in writing for the record.

Yours sincerely,

Byron Swift

Byron Swift
Executive Director

Honorable Chairman and Members of the Committee:

IUCN-US wishes to heartily endorse support of study of the proposed National Institutes of the Environment (NIE). As you may be aware, the Secretary of State has recently decided to pursue state membership in IUCN, representing a parallel and complementary initiative to that which you are undertaking.

IUCN-the World Conservation Union, is a global consortium of conservation organizations, both governmental and non-governmental. Today over 400 non-governmental conservation organizations, 120 government agencies, and 61 sovereign states are members of IUCN. Through its staff and network of over 2500 prominent specialists in various aspects of biological conservation and sustainable development, IUCN develops strategies to promote the use of natural resources on a sustainable basis which at the same time provide for conservation of the world's biological diversity and ecosystem health.

Because we have been involved for over forty years in promoting study and action for the conservation of biological resources, we welcome the initiative to establish a scientific body in the United States which can develop sound environmental policy options.

IUCN's experience indicates that a significant gap exists internationally between research in the biological sciences and the development of management regimes making use of the research.

We therefore believe that the proposed National Institutes of the Environment should have a strong biological conservation component. This unit should be empowered not only to collect data, but to develop new policy initiatives and innovative techniques to make the data applicable and relevant.

We urge you make provisions directing the National Academy of Science (NAS) to study the feasibility of developing extension and outreach facilities within the proposed NIE, with a program focus. In many countries of the developing world, for example, training and resources for park management lag far behind adequate levels, and technology transfer mechanisms must be considered. IUCN would be pleased to play a consulting role.

IUCN's expertise lies in the development of action plans for the conservation of rare and endangered species; strategies to conserve tropical forests; plans for the conservation of biological diversity through protected area management; and the provision of information from our databases on environmental status and conditions.

We believe that the study should evaluate the potential for a grantmaking facility which can allow institutions in developing countries to provide on the ground research and management of key areas for biological diversity. These initiatives would help provide for an acceptable and sustainable future for those who live in the biologically rich areas of the world which we as Americans depend upon, but which lie outside of our territory.

In becoming a State Member of IUCN, the United States will join other world leaders in developing an environmentally sustainable future. An effective outreach and extension facility within the NIE will provide a tool for collaboration with organizations such as ours, and multiply the effectiveness of our respective efforts in carrying out conservation programs.

II

101ST CONGRESS
2D SESSION

S. 2176

To provide better enforcement of the environmental laws of the United States, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 26 (legislative day, JANUARY 23), 1990

Mr. LIEBERMAN (for himself, Mr. LAUTENBERG, Mr. CHAFEE, Mr. DUEENBERGER, Mr. JEFFORDS, and Mr. WILSON) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To provide better enforcement of the environmental laws of the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Pollution Prosecution Act of 1990".

SEC. 2. EPA OFFICE OF CRIMINAL INVESTIGATION.

The Administrator of the Environmental Protection Agency (hereinafter referred to as the "Administrator") shall increase the number of professional criminal investigators as-

signed to its Office of Criminal Investigations in fiscal year 1991, and in each of the next following 4 fiscal years. The increase in each such fiscal year shall be at least equal to 30 percent of the aggregate number of criminal investigators assigned to that office during the prior fiscal year. For fiscal year 1991, and in each of the next following 4 fiscal years, the Administrator shall provide additional support staff to the Office of Criminal Investigations.

SEC. 3. CIVIL INVESTIGATORS.

The Administrator, as soon as practicable following the date of the enactment of this Act, but no later than fiscal year 1991, shall hire 50 civil investigators to assist the Office of Enforcement and Compliance Monitoring in developing and prosecuting civil and administrative actions and carrying out its other functions.

SEC. 4. NATIONAL TRAINING INSTITUTE.

The Administrator shall, as soon as practicable but no later than fiscal year 1991, establish within the Office of Enforcement and Compliance Monitoring the National Enforcement Training Institute. It shall be the function of the Institute, among others, to train Federal, State, and local lawyers, inspectors, civil and criminal investigators, and technical experts in the enforcement of the Nation's environmental laws.

SEC. 5. FUND.

(a) There is established in the Treasury of the United States the Pollution Prosecution Fund (hereinafter referred to as the "fund").

(b) Commencing with fiscal year 1991, and each fiscal year thereafter, the Secretary of the Treasury shall transfer to the fund an amount equal to the greater of (1) $10,000,000, or (2) an amount determined by the Secretary to be equal to 50 percent of all moneys (other than moneys specifically earmarked by law for other purposes) deposited in the general revenues of the Treasury during the preceding fiscal year from penalties imposed in connection with the violation of laws administered by the Environmental Protection Agency.

(c) Moneys in the fund shall be available, in such amounts as are provided in appropriation Acts, for use in carrying out the provisions of this Act. Moneys in the fund, to the extent determined by the Administrator to be in excess of the amounts needed for purposes of this Act, shall be returned to the general revenues of the Treasury.

(d) Nothing in this Act shall be construed as reducing or otherwise modifying or limiting any other authorization for appropriations available to the Environmental Protection Agency.

SEC. 6. AUTHORIZATION.

For the purpose of meeting the initial needs of this Act for fiscal year 1991, there is authorized to be appropriated $10,000,000.

II

101ST CONGRESS
2D SESSION

S. 2371

To direct the National Academy of Sciences to conduct a study of the feasibility of an umbrella research arm to support research on a variety of environmental issues.

IN THE SENATE OF THE UNITED STATES

MARCH 29 (legislative day, JANUARY 23), 1990

Mr. BRADLEY (for himself and Mr. LAUTENBERG) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

---

A BILL

To direct the National Academy of Sciences to conduct a study of the feasibility of an umbrella research arm to support research on a variety of environmental issues.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. STUDY.

(a) The National Academy of Sciences shall conduct a study of the feasibility of an umbrella research arm, the National Institutes for Environmental Research, which would support training in the environmental sciences and fundamental and applied environmental research on a wide variety of disciplines, including biology, ecology, geology, and engineer-

ing through intramural and extramural research activities, including competitive grants to institutions and organizations that support interdisciplinary research teams and that support investigator-initiated proposals.

(b) The National Academy of Sciences shall evaluate the current state of extramural research support and undergraduate and graduate training relevant to such issues as tropical deforestation, species extinction, ecosystem degradation, biological restoration, use of underutilized resources, economic consequences of environmental change, sustainable resource use, and the human impact on the environment and of environmental impact on human endeavors.

(c) Within the 12-month period following the date of the enactment of this Act, the National Academy of Sciences shall report to the appropriate committees of Congress on its recommendations regarding mechanisms that can be used to advance environmental research and training, their relationship to existing Government programs and other research entities conducting environmental research, and appropriate levels and sources of funding.

(d) There is authorized to be appropriated $500,000 to carry out the provisions of this Act.

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31-544 (184)